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The
ILLINOIS
Medical Journal

VOL. 91  NO. 1

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In This Issue

Bronchoscopy as an Aid
in the Diagnosis of
Pulmonary Disease

+

Progress in
Neurology and Psychiatry

+

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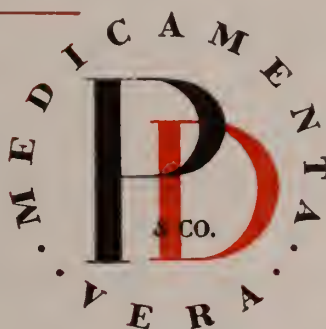
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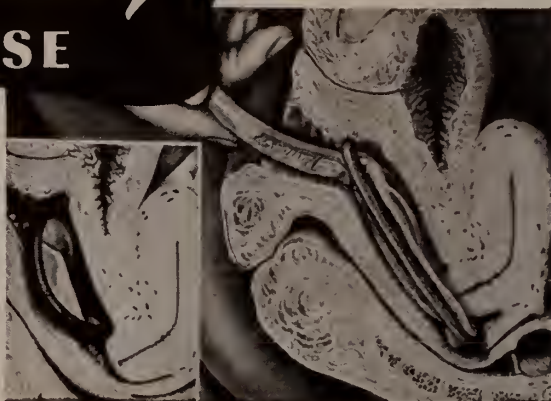
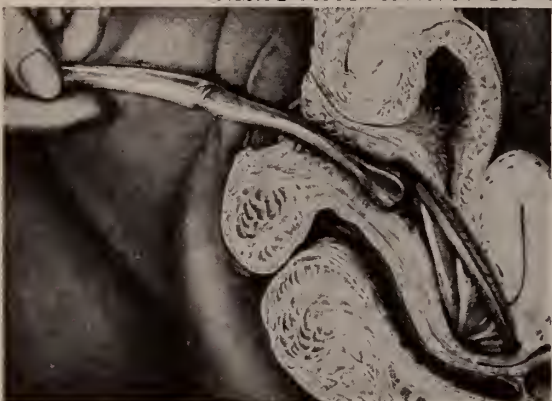
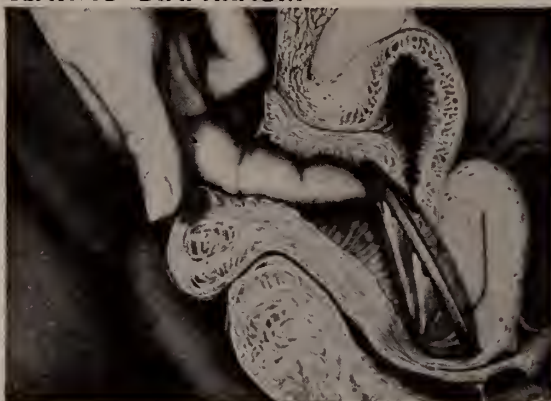
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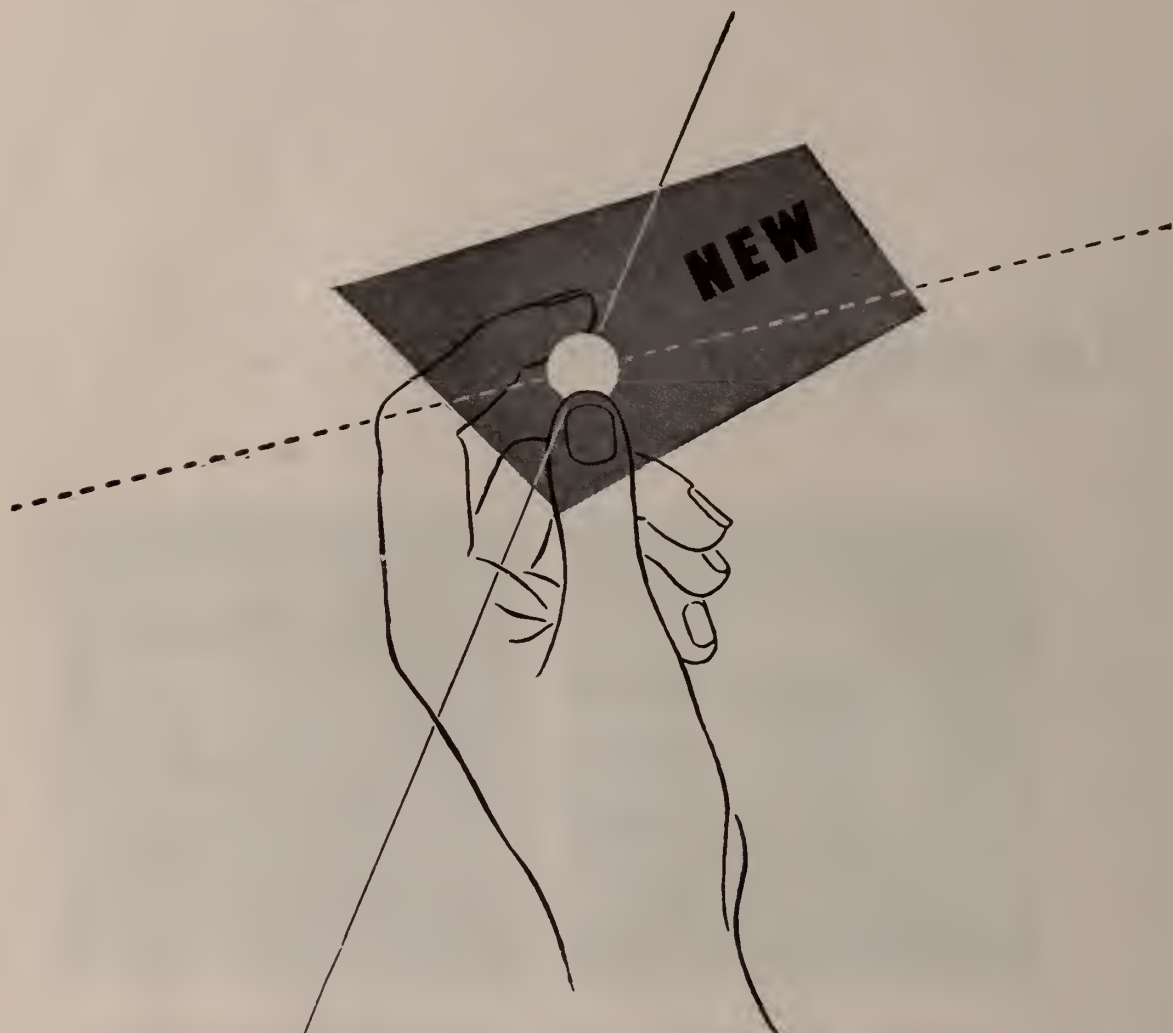
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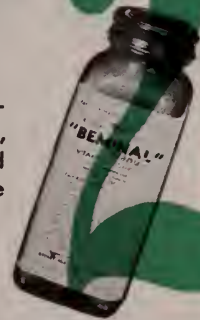
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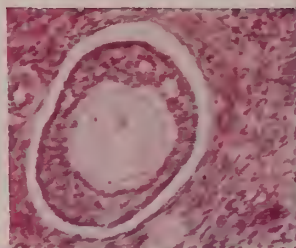
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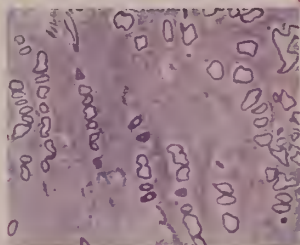
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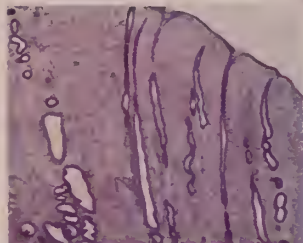
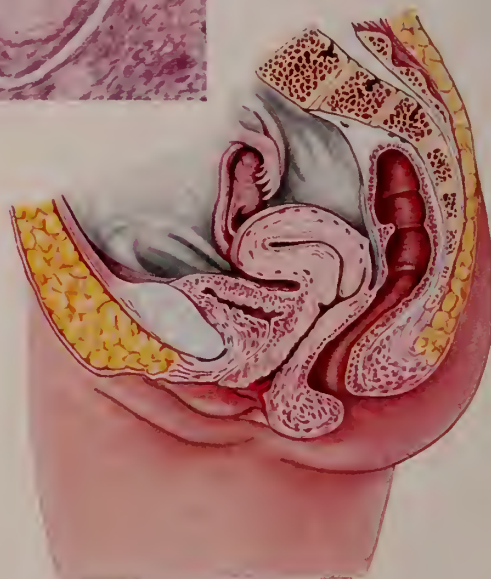


Color photomicrograph of section of ovary showing corpus luteum.

Color photomicrograph of section of ovary showing graafian follicle.



Color photomicrograph of endometrium during secretory stage.



Color photomicrograph of endometrium during proliferative stage.

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BIBLIOGRAPHY: (1) Lehr, D.: Proc. Soc. Exper. Biol. & Med. 58:11, 1944. (2) Lehr, D.: Federation Proc. 4:127, 1945. (3) Lehr, D.: J. Urol. 55:548, 1946. (4) Lehr, D.; Slobody, L. B., and Greenberg, W. B.: J. Pediat. 29:275, 1946. (5) Flippin, H. F.; Reinhold, J. G.; Pollack, L., and Clausen, E.: Ann. Int. Med. 25:433, 1946.

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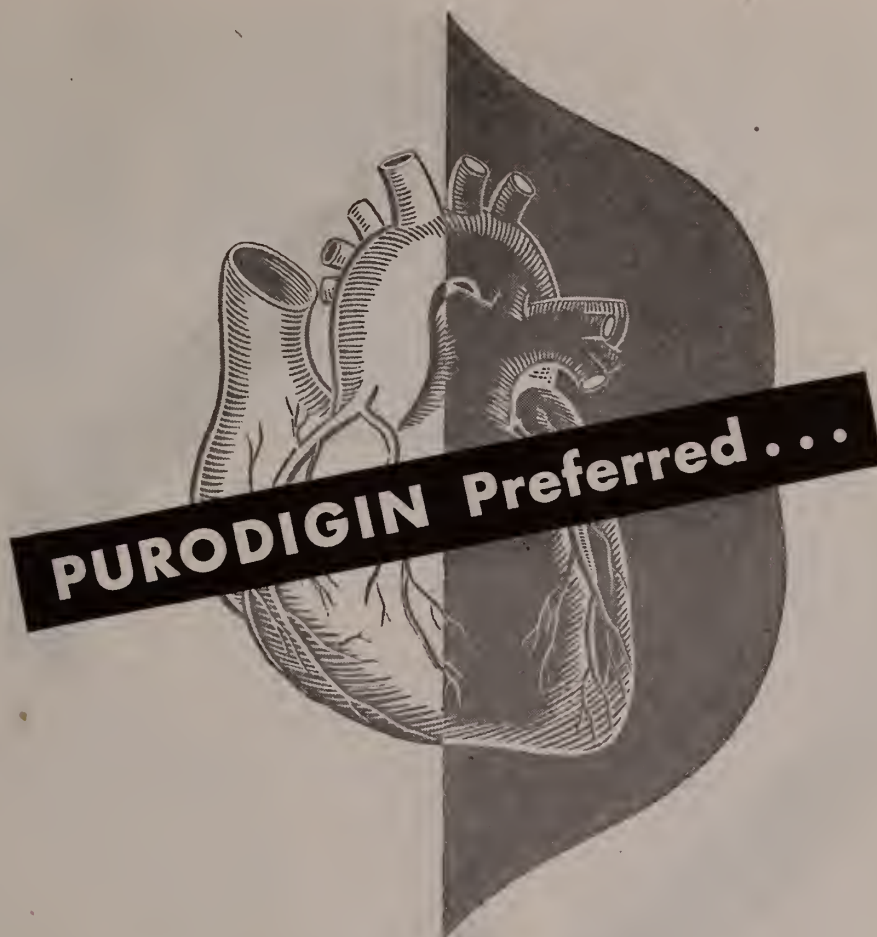
* *Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60



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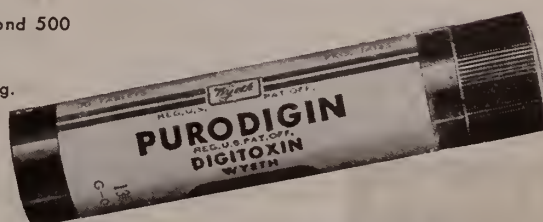
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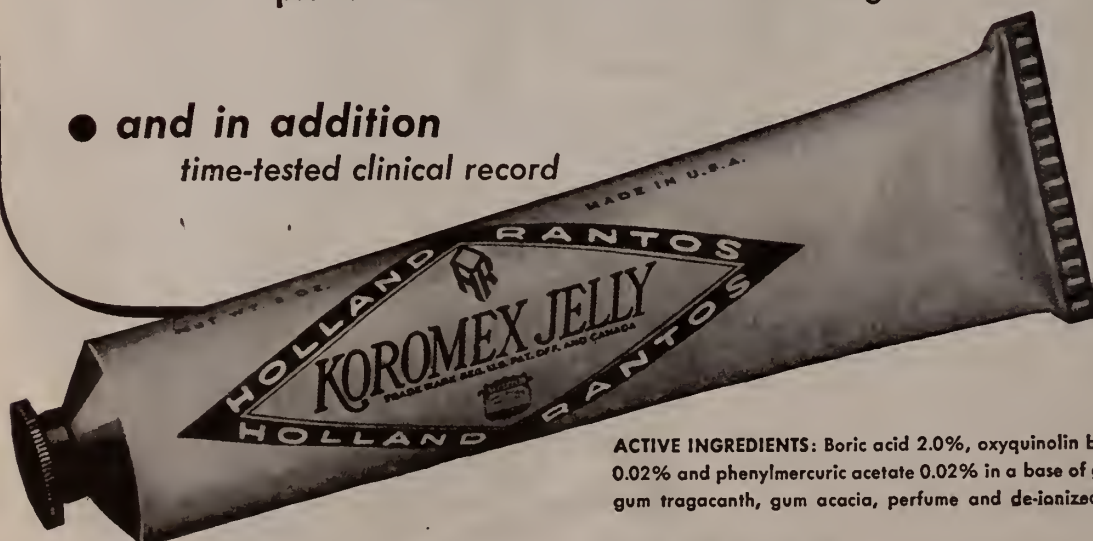
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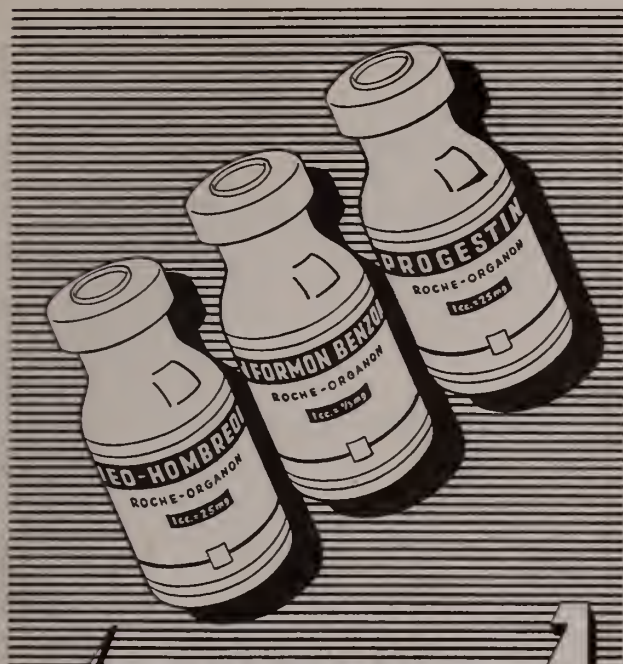
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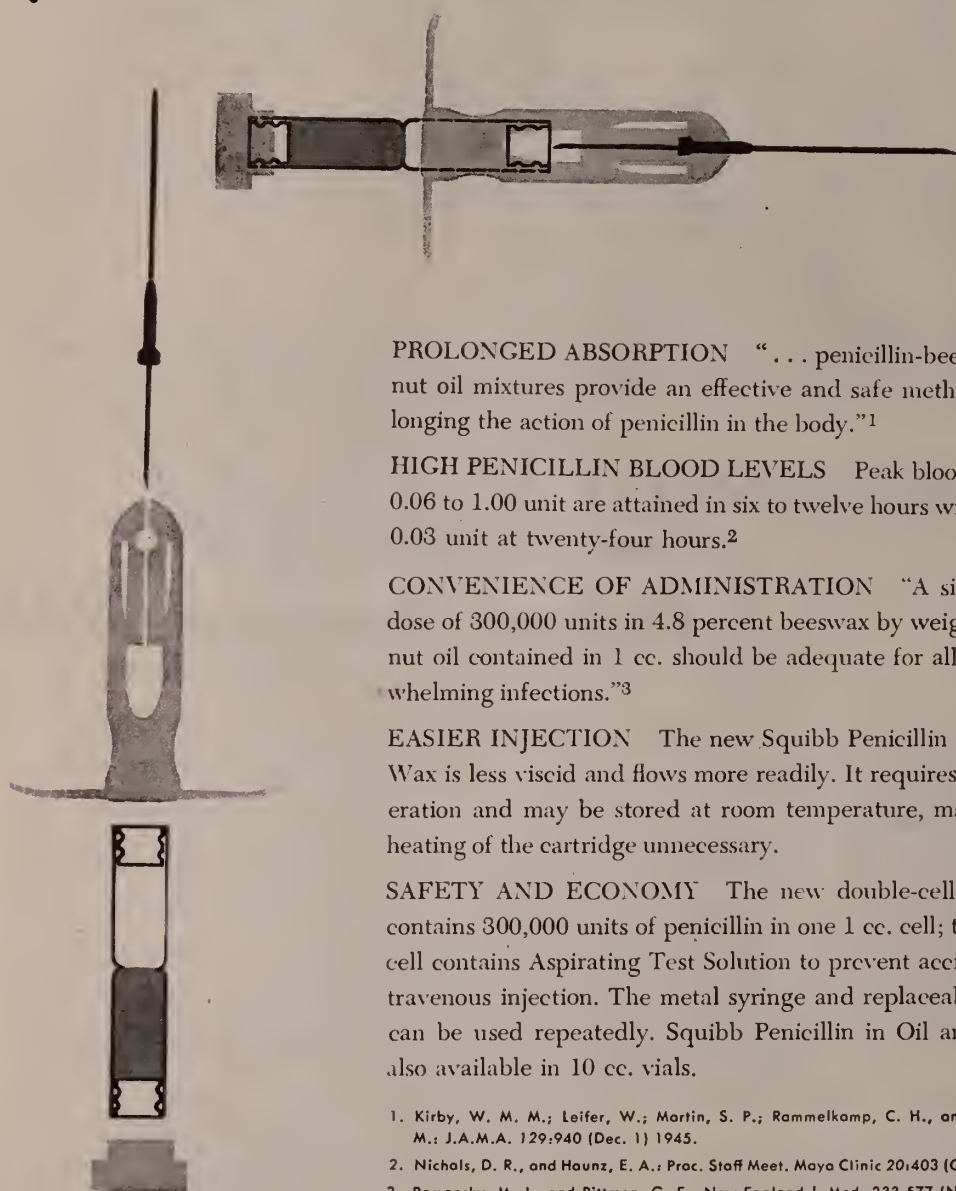
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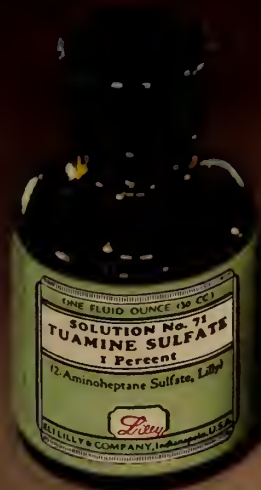
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The Illinois Medical Journal

January, 1947

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Official Journal of the Illinois State Medical Society

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Editorials

AMERICAN LEGION OPPOSES COMPULSORY HEALTH INSURANCE

At the twenty-eighth annual convention of the American Legion held recently in San Francisco, a resolution was introduced and passed whereby the National Organization is on record as opposing Compulsory Health Insurance. Previously several state Legion organizations at their regular meetings passed a similar resolution which was taken to the national group at the annual meeting.

The resolution is as follows:

WHEREAS, Veterans who have served in the armed forces now have available to them hospital and medical care provided by the United States Government, and

WHEREAS, There are countless voluntary health insurance plans now being offered by the physicians and the insurance companies, and

WHEREAS, Proposed plans of compulsory health insurance would increase the tax burden and bring about regimentation of the medical profession, and

WHEREAS, All forms of compulsion are repugnant to our American way of life since our liberties and opportunities would be circumscribed,

THEREFORE BE IT RESOLVED, That the National Assembly of the American Legion hereby expresses its opposition to compulsory health insurance.

Many national organizations have gone on

record in recent months as opposing compulsory health insurance. It is most gratifying to see an organization so interested in the welfare of the American people and the American way of life come out in opposition to such a measure as has been promulgated in the Wagner-Murray-Dingell bills, and many other bills of a compulsory nature which would affect the medical care of the American people.

It is hoped that our legislators will realize that many Americans outside of the medical profession are vitally interested in this subject. Having seen so many additions to the tax bills of our people in recent years, and realizing that there has been a continuous effort to centralize more and more each year many of the things which the people as a whole consider their individual rights, the legislators should change their demands for a compulsory plan to one which is actually desirable and needed. If grants in aid are made to states to permit them through local plans to furnish medical care to those unable to pay their own way, it should take care of anyone in the lowest income groups as well as those who have always been receiving local aid.

MENTAL HYGIENE AND MENTAL DISEASE PROGRAM

During the recent months there has been a wide appeal made for an improvement in the care given to the mentally ill, and a number of

states have been accused of having institutions for the care of these people which are obsolete, and unable to render the type of care that is so essential in these cases.

At the 1946 annual meeting of the American Medical Association held last July in San Francisco a resolution was introduced and referred to a reference committee, in which it was recommended that in every state there be organized and adequately financed, a state wide mental hygiene and mental disease program. The resolution was adopted by the House of Delegates, and it is as follows:

WHEREAS, There is urgent need in most of the states for well organized and adequately financed mental hygiene programs, for research activities in the field of mental disease and for improved institutional care of the mentally ill; and

WHEREAS, the medical profession should

give increased leadership and support of such activities;

THEREFORE BE IT RESOLVED, That each state medical association be requested to take the lead in the development of a statewide mental hygiene and mental disease program and to cooperate with other groups in stimulating public support in order that sufficient funds may be secured for the proper operation and maintenance of such activities.

Physicians in Illinois and elsewhere should be interested in this recommendation and do everything within reason to see that this is carried out. Some of the stories and accompanying pictures have told the story to the American people in a way that it becomes quite obvious that institutions for the care of the mentally ill should be completely up to date and so equipped as to give the care so essential to the well being of these people. Patients should have the best oppor-

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tunity of regaining their health so that they may once more become self supporting members of their communities instead of remaining wards of the state.

That there is a lack of psychiatrically trained personnel in many of these institutions is well known to most members of the medical profession. Perhaps one outstanding reason for this lack is the fact that in many instances these trained specialists are under paid and cannot afford to take the intensive training which is the background for competent psychiatrists. With the ever increasing problems before the American people, and with so many demands made upon them today, as well as the anxiety, worry and lack of relaxation more prevalent than ever before, it is not surprising that the number of people with various types of mental disease has been increasing at a rapid rate.

With carefully arranged mental hygiene programs and better care in the state institutions, much can be gained in the years ahead and it is possible that through the proper reorganization of these programs and other improvements, many of these unfortunate people may be restored to a life of normal activity once more.

THE MEDICAL BENEVOLENCE FUND

For a number of years the Illinois State Medical Society has had a Committee on Medical Benevolence, and a Medical Benevolence Fund in order that monthly checks may be sent to aged or ailing members of the society, widows, widowers, or dependent children when unable to support themselves properly. To date the funds which have been used in aiding many of these people have been appropriated from the general funds of the Society by proper Council action.

At a meeting of the Council held on November 24, the president of the Society urged the Council to create an active interest on the part of the membership to establish a permanent fund to be used in this work in the hope that eventually the principal will be sufficient to make it possible to carry on the functions as prescribed in the By-Laws from the interest on this principal.

It was thought that since the members of this Society have contributed so freely to many worth while causes, in all probability they would be willing to make contributions to this permanent

Benevolence Fund so that eventually these aims and objectives could be attained. The Council, after careful consideration, gave unanimous approval and authorized the Committee on Medical Benevolence to send out a letter in the near future to all members of the Society soliciting donations to the fund.

Several members previously had stated that they would add a provision in their wills so that a certain sum would be allocated to the Benevolence Fund, and some have reported that they have patients desirous of doing the same. These proposals should be encouraged at every possible opportunity.

Within the coming weeks each member of the Illinois State Medical Society will receive a letter from the Committee on Medical Benevolence containing this information, and with it a short form so that checks may be sent to the Committee, addressing them to the secretary's office where the funds will be acknowledged and placed promptly in the Benevolence Fund. This is a worthy cause and one which should appeal to the membership at large. This will do doubt result in the forming of a permanent fund which was long the aim of the man who was responsible for the creation of this Fund some years ago — the late John S. Nagel of Chicago, for a quarter of a century a member of the State Society's Council. It is generally felt that the members of the profession should back this project to "care for their own".

It is hoped that each member will keep this in mind and will reply promptly when the letter and form are received from the secretary's office.

DESIRABILITY OF A COOPERATIVE PROGRAM BETWEEN THE MEDICAL PROFESSION AND INDUSTRY

A few months ago an interesting article appeared in a medical journal on "What Industry Expects of Medicine"* which is most interesting and should be read by physicians everywhere. This article shows the urgent need for a cooperative program between the medical profession and industry as well as between medical profession and labor. The medical profession is of material aid in the setting up of suitable programs for adequate care of the workers, the pre-employment

*Connecticut State Medical Journal, 10: 4-296. April 1946.

examinations, and in directing medical activities in this connection at all times.

It is quite obvious that industry is desirous of giving employees the best of care, and this can only be assured when care is given by physicians adequately trained in industrial medicine. This is a specialty in medicine generally recognized today and any physician qualifying as a reliable industrial physician and surgeon must naturally have special training along these lines.

The reliable industrial physician must be able to understand the many problems of industry as well as those of labor; must be able to speak their language and be thoroughly familiar with the latest developments not only in industrial medicine, but also in sanitation, preventive medicine, and be able to evaluate disabilities properly. Industry is naturally desirous of seeing that the workers, when sick or injured, receive the best of care and return to work at the earliest possible moment — although, of course, they do not want their men to return until it is entirely safe to do so.

Industrial physicians today should urge all workers to take out prepayment medical and surgical insurance so they will be able to meet the costs or the major portion thereof, when the unexpected or so-called "catastrophic illness" or accident is their lot. This is the best possible answer today for these men, and in the long run, will be much cheaper for them than would be the case if a compulsory health insurance plan were in operation. By being so protected, they should have less to worry about when sick or disabled from accidental causes.

Labor naturally and properly, expects something from the medical profession. By the same token, both industry and labor owe certain allegiance to the medical profession for their interest and action in regard to industrial groups. They should realize that when problems concerning health and medical care are under consideration, they should ask for guidance from the medical profession. Only those with medical training are best able to give advice on these subjects.

For many years the medical profession has been intensely interested in the health of workers and the care of these people when disabled in connection with their duties. The necessity for special training for those who become industrial physicians has been thoroughly recognized.

It is quite obviously necessary that labor, management, and the medical profession maintain a closer relationship in their cooperative programs in the future. This unquestionably will react to the best advantage of all groups concerned.

DO YOU HAVE MEDICAL FILMS?

The revision of the Speakers' Handbook, sponsored by the Scientific Service Committee of the Illinois State Medical Society, is now under way. More than 500 physicians have returned cards signifying their willingness to participate in the Speakers' Bureau. Dr. Robert S. Berghoff, Chairman of the Scientific Service Committee, has approved the inclusion in the new Handbook of a section devoted to films available for showing at various meetings of county and district medical societies. Physicians who have agreed to serve their fellow practitioners in this excellent presentation of the Scientific Service Committee are requested to notify at once by mail or telephone Miss Ann Fox, Secretary of the Educational Committee, Illinois State Medical Society, what films or lantern slides are available in connection with their talks. The Office of the Educational Committee is 30 North Michigan Avenue, Chicago 2, and the telephone number, State 4415.

HAPPY NEW YEAR

These two words, like Merry Christmas, Thank You, Good Morning, and Good Night, are cryptic, all comprehensive, but above all they are completely objective. Their actual meaning depends entirely upon whom they are addressed to, and by whom.

"Happy New Year" by a public official to a public official, be he President of the United States, Governor, Mayor of a city, etc., means in effect: "May this new year lead to the fruition of all the plans you have formulated for your fellow men." To the average human being it means: "May you survive another three hundred and sixty-five consecutive days with an even admixture of work, rest, comfort, peace, health and well-being." To the clergyman it means: "May humanity under the guiding hand of you and yours properly evaluate the materialistic and the supernatural and appreciate the futility and emptiness of a gross and sordid

life." To you, members of the medical profession, what does my wish Happy New Year entail? Health, energy and ambition, the Three Horsemen, without which the life to which you are consecrated is impractical. And given these prerequisites; "May you be allowed to carry on in the practice of medicine free and untrammelled by extraneous interference. May you continue to sense that inner satisfaction and warmth which belongs to those who devote their lives to Service — service to their fellow men, without restriction as to creed, color or thought of pecuniary reward."

To all men, great and small, haughty or humble, Happy New Year should, if expressed sincerely, mean something like this:

"May the New Year allow you to enjoy the fingers of babies mauling at you, while with cooing, upturned faces, they permit you a glimpse of angels.

"May you drink in the breath of spring with its budding flowers and tuned by the laughter and shrieking of playing children.

"May you, after the heat and toil of the sum-

mer's sun, gather in a rich harvest and relaxingly revel in the shade of accomplishment.

"And when winter comes, may you with a withered, wistful smile be able to sigh contentedly 'I have made little children happy, have been kind to the poor, sickly and aged. I have made mistakes, but the right side of my yearly ledger outweighs the left.'"

HAPPY NEW YEAR, HAPPY NEW YEAR

PHYSICIANS' PHOTOGRAPHS

The work of photographing members of the Illinois State Medical Society is still under way. Mr. Joseph Merante, who has been carrying on this project for some three years, is calling on doctors at various hospitals in the the state. Members of the council, officers and various committees have already been photographed. Some 3,000 individual physicians have been photographed toward the ultimate compilation of a complete library of photographs of physicians in the state of Illinois. There is no charge to the physician for the photograph taken nor is there any obligation to purchase portraits.



A.M.A. PLANS FOR CENTENNIAL SESSION AT ATLANTIC CITY

The American Medical Association will celebrate its centennial in Atlantic City, June 9 to 13, 1947.

Arrangements call for "making it one of the greatest and most interesting medical assemblages ever convened," according to an editorial in *The Journal*.

"Each of the scientific sections of the American Medical Association has been authorized to secure a distinguished speaker from abroad and to include also in its program a review of medical progress in the specialty concerned for the hundred year period," states the editorial. "Each of the general scientific meetings will provide for the presentation of three papers constituting reviews of the advancement in the fields discussed, followed by panel discussions on such subjects as the modern management of heart disease, emergency surgery and antibiotics in therapy."

Another highlight of the centennial session is "the utilization of Sunday, June 8, as a special public health day. A religious program is being arranged with representatives of the leading faiths of our country.

This will be held in the great auditorium in convention hall and will no doubt be broadcast on one of the national chains. At the same time congregations assembled for religious services elsewhere throughout the nation will be given messages regarding the advancement of medical science and the improvement in the public health that have occurred during the hundred year period.

"The division of motion pictures in the headquarters office of the American Medical Association is at present engaged in the development of two motion pictures dealing with the lives of the distinguished American physicians of the period concerned and with the evolution of motion pictures in medical teaching. The first public showings are contemplated for Monday evening, June 9. . . ."

The President's Reception will be among some of the many other features planned for the centennial celebration. *The Journal* editorial states that "distinguished foreign guests, as well as the officers of the American Medical Association, will on that occasion be honored at the reception, and music will be provided by one of the leading orchestras of the nation."

State Department of Public Health

TONSILLECTOMIES AND POLIOMYELITIS

Confirming a news release on November 8, the State Department of Public Health now believes that tonsillectomies need no longer be deferred because of the poliomyelitis epidemic. Discontinuance of tonsil operations was urged early in the summer because of their tendency to favor the development of the bulbar form of the disease.

The peak of this year's epidemic occurred during the week ending September 21, when 210 cases were reported. Since that time the number of reported cases has decreased each week except for a moderate rise during the weeks ending October 5 and October 12. The latest report for the week ending November 2 is 72. The decline in reported incidence is unusually slow in Illinois as well as throughout the country.

The belief that tonsillectomies may now be performed without special hazard as to poliomyelitis represents the combined opinion of the Chicago Board of Health, District 3 office of the U. S. Public Health Service and the State Department of Public Health.

SEVENTEEN ILLINOIS COUNTIES VOTE COUNTY HEALTH DEPARTMENTS

Results of the November election added seventeen counties to the list of five counties in Illinois which have established locally financed and administered county health departments under the Searcy-Clabaugh County Health Department Law.

On November 5, Peoria, Will, Lee, Fulton,

Morgan, Lawrence, Wabash, Alexander, Pulaski, DeWitt, Piatt, Effingham, Shelby, Pope, Hardin, Massac and Johnson Counties voted favorably on referenda which will provide these counties with fulltime professional public health service. Rock Island County was the only one of the eighteen counties voting on the issue which rejected the proposition.

The goal toward which the Illinois State Department of Public Health and the Illinois Statewide Public Health Committee have been working since 1942 is that of full coverage of the state by fulltime, professionally staffed health departments in cities and counties. This goal was set as a result of recommendations made by the American Public Health Association after a survey of public health needs in Illinois made in 1941 on invitation of Governor Dwight H. Green and Director of Public Health, Dr. Roland R. Cross.

Of the 102 counties in Illinois, twenty-two are now in a position to profit by the same type of public health protection which two-thirds of the other counties in the United States now enjoy. Counties which had previously established health departments under the Searcy-Clabaugh Law in Illinois are: Cook, DuPage, Adams, Montgomery and McLean.

In this recent November election, one four-county and three bi-county health departments were authorized. Pope, Hardin, Massac and Johnson Counties voted to establish a multiple-county health department. DeWitt and Piatt, Wabash and Lawrence, Alexander and Pulaski Counties voted respectively on bi-county health departments. In the case of Peoria, Will, Ful-

ton, Morgan, Wabash, Lawrence, Alexander and Pulaski Counties, the November vote means a continuation of war emergency health department service which had been set up on a temporary basis.

As a result of the county health department movement in Illinois, over 1,200,000 people now, or soon will, have adequate local public health service.

CANCER CONTROL PROGRAM EXPANDS

The significance of the increase in cancer as a cause of death, in Illinois as throughout the country, has stimulated a more profound interest in methods for its control. This is evidenced by the growing number of requests from the medical profession and hospitals for assistance in organizing cancer diagnostic clinics and obtaining other services facilitating diagnosis. The State Department of Public Health is attempting to meet these needs. Very able assistance has been given the Department by its Cancer Advisory Board*, the Illinois Division of the American Cancer Society, and the Cancer Committee of the State Medical Society. Close cooperation between all groups had led to a unified program of education and services.

Foremost among the needs of the profession are the consultation services offered in cancer diagnostic clinics. Assisting in the establishment of such clinics has been one of the chief functions of the Department's Division of Cancer Control. The vagaries of cancer, its diagnosis and treatment, often require the combined thought of the surgeon, the radiologist and the pathologist. The increasing demand for service of this type is indicated by the 4,100 patient-visits and the attendance of 2,080 physicians at established clinics in Illinois since January 1 of this year. It is, therefore, of prime importance to increase the number of cancer diagnostic clinics. Recently, with the aid of State funds, a new clinic was organized at St. Francis Hospital in Evanston, thus bringing the total to six now operating in this State. Others are functioning at the Illinois Research Hospital, Champaign; St. Anthony's Hospital, Rockford;

Burnham City Hospital, Champaign; Christian Welfare Hospital, East St. Louis; and Memorial Hospital, Springfield. Particularly noteworthy is the interest in organization of similar clinics manifested by professional groups in Herrin, Danville, DuQuoin, Bloomington, Peoria and Jacksonville. It is quite probable that new centers will be established in these communities within the near future. As the number of centers increases, consultation service becomes more readily available without cost to physicians and their patients.

As the work of established clinics has grown, the need for follow-up of patients has become more evident. After the initial visit many patients still hesitate to undergo prompt treatment. The value of early diagnosis is thereby often lost. Consequently, specially qualified nurses have been added to the staffs of several clinics for the sole purpose of keeping in touch with patients and helping them to arrange for treatment. An additional value of follow-up service is derived from records thus obtained. What is being accomplished and how can the service be improved are questions which can be answered only when the final status of the patient is known.

In several areas cancer diagnostic clinics are handicapped by the lack of trained consultants or adequate facilities. To solve this problem the Department is attempting to arrange for the services of qualified physicians who will visit the clinics at regular intervals. In the southern area of the State, x-ray interpretation has already been provided. Films which indicate the presence of a malignant tumor may be sent, with a brief history of the case, to Dr. C. E. Bell, radiologist at the Christian Welfare Hospital, East St. Louis, for reading. The cost of this service is borne by the State Department of Public Health. The examination of biopsies**, available to physicians whose patients cannot afford this procedure, has been provided for some time and will continue.

Promoting and aiding these various services are fundamental to cancer control, but the need for general educational measures is given equal

*Dr. Rosewell T. Pettit, Ottawa, Chairman, and Doctors William Cooley, Peoria; Everett P. Coleman, Canton; James P. Simonds, Chicago; J. S. Templeton, Pickneyville; John A. Wolfer, Chicago, and Edwin F. Hirsch, Chicago, Secretary.

**Tissues may be sent to any one of the following hospitals: Illinois Research, Chicago; St. Anthony's, Rockford; Memorial, Springfield; Burnham City, Champaign; Christian Welfare, East St. Louis. This service is limited to patients who cannot pay for this service.

recognition by the Department. The most adequate facilities will not suffice unless the people know the facts about cancer. The recognition of early symptoms, the curability of cancer through prompt treatment, the futility of quacks and patent medicines, and relying on the ethical physician for advice — these form the basis of a continuous educational program. A widespread, common knowledge of the disease based on scientific facts, plus reliable medical service, can help materially to reduce the number of deaths due to cancer.

FURTHER TESTING OF NEW TYPHOID VACCINE

Working jointly, the Samuel Deutsch Serum Center and the laboratories of the State Department of Public Health have developed a new vaccine which promises increased protection against typhoid fever. The new product, like the one now commonly used, still consists of a suspension of dead typhoid bacilli. What makes it new is that the bacteria are killed through the use of ultra-violet irradiation rather than with heat. The standard mouse potency test as applied to the irradiated product reveals it to be 50 to 100 times more potent as an immunizing agent than the heat killed vaccine. With the usual dosage of $\frac{1}{2}$, 1 and 1 cc. at weekly intervals, it is also found that the irradiated vaccine produces a higher titer of protective antibodies in human beings. Results such as these clearly indicate the benefits of ultra-violet irradiation as compared with the heat process. As far as protection against typhoid fever is concerned, tests thus far tend to establish the greater value of the new agent.

There is one question, however, which remains to be answered. What undesirable reactions are encountered with the use of this vaccine and how do they compare with those associated with the heat-killed product? This is an important question for reactions in many instances have discouraged the acceptance of typhoid inoculations. In institutional work, reactions due to both triple and plain typhoid vaccines have been a real source of trouble requiring added medical and nursing attention. Preliminary testing of the new product seems to indicate that these unwanted features will be minimized but further work is needed to establish this point.

For this purpose, the Department has been fortunate in securing temporarily the part-time services of a qualified physician. The plan is to administer standard dosages of the new vaccine to several hundred individuals. These persons will be observed closely for the presence and degree of any local or systemic reactions following inoculations. Simultaneously, a number of other individuals, serving as controls, will receive standard dosages of the heat-killed agent and will undergo similar observation. Data concerning reactions in both groups will then be tabulated and compared to see if irradiated vaccine conforms to expectations.

Assuming the laboratory and clinical testing establish the value of irradiated vaccine, we yet must wait to see the effect of wide usage over a prolonged period of time. Will it protect against typhoid fever under all the varying types and degrees of exposure? The evidence indicates that it will, and if time confirms that evidence we shall have advanced another step forward toward the goal of an effective and safe immunizing procedure.



Correspondence

THIRD ANNUAL CLINICAL CONFERENCE CHICAGO MEDICAL SOCIETY

The Chicago Medical Society Annual Clinical Conference will be presented March 4th, 5th, 6th and 7th, 1947, at the Palmer House, in Chicago. The Scientific Program has been arranged to include subjects of real interest to all physicians but particularly to the liking of general practitioners. Nationally renowned medical authorities have been selected to present the program. Previous programs of this Annual Conference have been praised as outstanding, in spite of the difficulties occasioned by war-time regulations, repeal of these restrictions should make the 1947 Conference much greater than its predecessors.

The Technical Exhibitors have been enthusiastic in their response to the announcement of this meeting, resulting in complete occupancy of all available space in the exhibit hall. The quality of the Technical Exhibits has been assured by this tremendous demand for space.

Scientific Exhibits, of proven merit, have been carefully screened to guarantee the post-graduate value of this most important section of the conference. Ample time has been set aside to permit everyone to visit all exhibits.

This intensive four-day post-graduate Conference is open to all ethical physicians and Chicago Medical Society is proud of the opportunity of inviting you to attend.

NATIONAL CONFERENCE ON MEDICAL SERVICE

The 20th Annual Meeting of the National Conference on Medical Service will be held

at the Palmer House, Chicago, Illinois, on February 9. Registration will commence at 9:00 A.M. and the program will include discussions in the fields of national affairs, economics and medical education. All physicians are invited to attend, there is no registration fee. Dr. Cleon A. Nafe, Indianapolis, is President of the Conference and Creighton Barker, New Haven, is the Secretary.

MISSISSIPPI VALLEY MEDICAL SOCIETY MEETS OCTOBER 1-2-3

The 12th Annual Meeting of the Mississippi Valley Medical Society will be held in the half million dollar Municipal Auditorium at Burlington, Iowa, October 1, 2, 3, 1947, under the Presidency of W. A. Sternberg, M. D., F.A.C.S., of Mt. Pleasant, Iowa, a Trustee of the Iowa State Medical Society.

At the November meeting of the Board of Directors the following officers were elected:

President Elect: W. O. Thompson, M.D., F.A.C.P., Chicago, Ill.

1st Vice Pres: B. J. Dierker, M.D., F.A.C.S., Ft. Madison, Iowa.

2nd Vice Pres: J. F. Ross, M.D., F.A.C.S., Golden, Illinois

3rd Vice Pres: D. L. Sexton, M.D., F.A.C.P., St. Louis, Mo.

Sec'y-Treas.: Harold Swanberg, M.D., F.A.C.P., Quincy, Ill

Acc't. Officer: Ralph McReynolds, M.D., F.A.C.P., Quincy, Ill.

The Executive Committee which will have charge of the Burlington meeting comprises Drs. W. A. Sternberg, W. O. Thompson, D. L. Sexton, Harold Swanberg, and J. C. McKitterick.

APPLY NOW FOR 2ND COURSE IN PSYCHIATRY

Forty-two graduate physicians, drawn primarily from the staffs of state or federal hospitals, are enrolled in a 12-week course in neurology and psychiatry, now being given by a staff of specialists at the University of Illinois College of Medicine, Polk and Wood Streets.

Applications are now being accepted by Dr. Ben W. Lichtenstein, director of the course, for a second identical course in the same subjects beginning in April 1947 and extending through June.

Of the 42 enrollees in the current course, 12 are members of the staffs of five state hospitals — Chicago, 3; Elgin, 2; Kankakee, 1; Manteno, 3, and Dixon, 3. Eleven are on the staffs of veterans hospitals in the Chicago area — Downey, 5; Hines, 4, and two from the Veterans Rehabilitation Center, 2449 West Washington Boulevard.

Ten are private practitioners or members of the staffs of private hospitals in Chicago and elsewhere. Fourteen are residents or fellows at the University who are taking the course concurrently with other studies or research work.

Tuition is free for physicians in Illinois state hospitals and University staff members, including fellows and residents. To others, it is \$120. Veterans, however, receive books and tuition fees through the G.I. bill of rights.

The course is mainly a review in preparation for examinations by the American Board of Psychiatry and Neurology. It also includes developments of the war years, when many of the physicians now enrolled were in the armed services.

The course consists of six half-day sessions each week, with each session in a different specialty. Physicians may register in one or more of the six specialties and attend only those sessions each week. About half of the present class are taking the entire course. The subjects are:

Basic psychiatry, neuro-anatomy, neuro physiology, neuro-pathology, psychoanalysis, and a combined course in neuro-roentgenology and electroencephalography.

Chief instructors in the courses are:

Dr. F. J. Gerty, Dr. Gerhart von Bonin, Dr. Eric Oldberg, Dr. F. A. Gibbs, Dr. Warren S. McCulloch, Dr. Percival Bailey, Dr. Franz Alexander, and Dr. Lichtenstein.

THE SOUTHEASTERN SURGICAL CONGRESS

The Fifteenth Annual Assembly of The Southeastern Surgical Congress will be held in Louisville, Kentucky, Brown Hotel, March 10, 11, 12, 1947. The following men will appear on the program:

Dr. Claude S. Beck, Cleveland, Ohio
Dr. W. F. Rienhoff, Jr., Washington, D.C.
Dr. Gordon S. Fahrni, Winnipeg, Canada
Dr. Donald T. Imrie, Vicksburg, Miss.
Dr. Henry W. Cave, New York City
Dr. Leonard Edwards, Nashville, Tenn.
Dr. Hugh A. Gamble, Greenville, Miss.
Dr. K. M. Brinkhous, Iowa City, Iowa
Dr. J. O. Rankin, Wheeling, W. Va.
Dr. R. B. McKnight, Charlotte, N. C.
Dr. Virgil S. Counsellor, Rochester, Minn.
Dr. T. C. Davison, Atlanta, Ga.
Dr. M. A. Gilmore, Parkersburg, W. Va.
Dr. Sumner L. Koch, Chicago, Ill.
Dr. Marshall L. Michel, New Orleans, La.
Dr. Robert S. Dinsmore, Cleveland, Ohio
Dr. Perrin Nicolson, Jr., Atlanta, Ga.
Dr. Harry Morris, New Orleans, La.
Dr. Norman F. Miller, Ann Arbor, Mich.
Dr. Joseph Cunningham, Birmingham, Ala.
Dr. Duncan McEwan, Orlando, Fla.
Dr. Arnold S. Jackson, Madison, Wis.
Dr. John Martin, Montgomery, Ala.
Dr. Warren H. Cole, Chicago, Ill.
Dr. W. Milton Adams, Memphis, Tenn.
Dr. Irving Abell, Louisville, Ky.
Dr. Elmer L. Henderson, Louisville, Ky.
Dr. A. J. Buist, Jr., Charleston, S. C.
Dr. Everett I. Evans, Richmond, Virginia
Dr. Joseph Stewart, Miami, Fla.
Dr. Frank A. Hoshall, Charleston, S. C.

FELLOWSHIPS IN MEDICAL RESEARCH

Dr. Thomas Parran, Surgeon General of the United States Public Health Service Federal Security Agency, announces that approximately 120 one-year fellowships in medical research are open to men and women who are graduate science students. These fellowships are part of the program of the National Institute of Health, a unit of the Public Health Service.

A war-created void in scientific manpower offers unlimited opportunity to trained personnel in the public health field, Dr. Parran pointed out. He declared it would take five years or longer to make up the shortage of scientists.

The National Cancer Institute, which operates as a division of the National Institute of Health also has funds to train approximately 30 phy-

sicians in the diagnosis and treatment of cancer, the Surgeon General said. Under a federally financed program, doctors wishing to specialize in this field may be appointed as trainees and be assigned to authorized non-federal, non-profit institutions in various parts of the country.

The National Institute of Health offers research fellowships to graduates of accredited colleges who have majored in such subjects as biology, chemistry, dentistry, entomology, medicine, physics, and other scientific fields.

Paying a yearly stipend of \$3,000, Senior Research Fellowships are awarded to men and women who hold PH.D. degrees in one of the specified scientific subjects. Junior Fellows, who receive \$2,400 annually, must hold a master's degree in science, or must have completed the equivalent of a master's degree in postgraduate study. Fellowships are for one year from the date of award, and may be renewed for a second year.

Applications for fellowships and traineeships should be sent to the Director, National Institute of Health, Bethesda, Maryland.

The Public Health Service also administers fellowships awarded by the State Department to health personnel from other American republics and the Philippine Islands. Between now and the end of 1947, 100 fellowships will be available to qualified residents of the Philippines. From 15 to 20 fellowships are open through June 30, 1947, to professional persons from other American republics. Applications for these fellowships should be sent to the Surgeon General, United States Public Health Service, Washington, D.C.

(25)

ADDITION TO U. OF I. HOSPITAL

Medical service to Illinois residents and the teaching and research facilities of the University of Illinois College of Medicine will be greatly expanded with the addition of a 13-story wing to the University's Research and Educational Hospitals at Polk and Wood streets.

Dr. A. C. Ivy, vice president of the University, said construction of the addition will begin about March 1, 1947 with excavation for the foundation and the driving of piling.

Total cost of the addition will be \$6,300,000. Of this amount, \$2,200,000 is available from funds appropriated for the current (1945-47) biennium. An additional sum of \$4,100,000 for the addition is included in the University's total budget request for the 1947-49 biennium for construction on the Chicago Professional College campus.

Hospital bed capacity will be increased from 503 to 723 by the addition. At present the University's hospital beds total 227 in the general hospital, 120 in the Illinois Surgical Institute for Children (University orthopaedic department), and 156 in the Illinois Neuropsychiatric Institute, which is owned by the department of public welfare but staffed and operated by the University.

The addition will be located on the west side of Wood street, between Polk and Taylor streets. It will occupy an area 150 ft. by 130 ft. now open between the present hospital and the Illinois Neuropsychiatric Institute. At the third floor level, the building will assume the shape of a huge "T" with the bottom end facing Wood street.



Original Articles

BRONCHOSCOPY AS AN AID IN THE DIAGNOSIS OF PULMONARY DISEASE

PAUL H. HOLINGER, M.D. AND ALBERT
H. ANDREWS, JR., M.D.

CHICAGO

The title of this paper is similar to those of two papers previously presented before this society.^{1,2} This paper is not intended to be repetitious but to emphasize the important changes which have occurred in the management of pulmonary suppuration, neoplastic disease, tuberculosis and certain cardiac conditions during the past few years since the previous presentations. These changes are principally the results of, first, improvements in technique of thoracic surgery in pulmonary suppuration, neoplasms, tuberculosis, and cardiac anomalies; second, the recognition of the importance of bronchial tuberculosis; and third, the great advances in chemotherapy.

PULMONARY SUPPURATION

The advent of the sulfa drugs and penicillin has increased the effectiveness of treatment of pulmonary suppuration; however, at the same time they have interposed certain diagnostic problems by contributing seriously to the masking of symptoms and findings, particularly in such conditions as undrained lung abscesses and bronchogenic carcinoma. The principle of drainage of suppuration whether in the chest or elsewhere may be overlooked because of clinical improvement produced by the administration of these chemotherapeutic agents. The continued

administration of these drugs as a substitute for either bronchoscopic or surgical drainage without improvement in the physical findings or x-ray findings may permit an insidious extension of the suppuration.

Bronchoscopy has both a diagnostic and a therapeutic role in the management of pulmonary suppuration. The diagnostic role consists of the study of the bronchial pathology and the removal of secretion for bacteriological study. The exact lobe or even the segment of the lung involved may in many instances be determined by identifying the bronchus leading to the area of suppuration by observation of its color and the presence of secretion. The severe inflammatory changes in the bronchial mucosa often proceed to the development of granulation tissue. Diagnostically the search for the etiologic factor must always be considered. A bronchogenic carcinoma may produce suppuration which masks the characteristic findings of the tumor. At bronchoscopy it is possible to demonstrate the tumor and obtain tissue or secretion for cytological study. Similarly, an unrecognized foreign body may be found as the cause of the suppuration. Vegetable foreign bodies are perhaps the most frequent offenders and are difficult to diagnose because of failure to show on the x-ray. However, they usually cause findings which are recognized by x-ray. Obstructive emphysema, which may be shown by inspiration and expiration films, and atelectasis indicate bronchial obstruction and suggest the possibility of a foreign body even in the absence of a positive history.

The bacteriological study of the secretion from pulmonary suppuration is of considerable im-

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portance. The bronchoscopic collection of this secretion eliminates contamination by organisms present in the mouth and throat. The etiologic organisms are present in higher concentrations in the secretion removed directly from the suppurative area. This is indicated in a series of cases of suspected tuberculosis in which the tubercle bacilli were demonstrated in bronchoscopically removed secretion and could not be demonstrated in sputums and gastric washings. Specific infections such as fungus infections and fusospirilla infections may be recognized by study of such secretion. Specific therapy may then be instituted.³

Bronchoscopy may be of therapeutic value in pulmonary suppuration by the removal of an etiologic factor such as a foreign body, by relieving the bronchial obstruction, and by the removal of secretion.

No discussion of pulmonary suppuration can be complete without the mention of the administration of penicillin by inhalation. This drug administered in this form has given surprisingly good results in many cases. The penicillin is dissolved in salt solution in concentrations of 10,000 to 50,000 units per cubic centimeter. One cc. of the solution is usually aerosolized by means of a special vaporizer, which produces particles of very small size, preferably of an average of one micron. Oxygen is used to vaporize the solution and the simplest arrangement is a "Y" tube thumb valve placed in the oxygen line so that vaporization is accomplished only during inspiration. Further economy may be achieved by incorporating a rebreathing bag between the vaporizer and the patient so that some of the penicillin exhaled may be inhaled at the following inspiration. A flow of oxygen of 4 to 8 liters per minute is used so that each treatment requires about 10 to 15 minutes. The frequency of treatments varies from 1 to 8 every twenty-four hours. Either sodium or calcium penicillin may be used; however, the latter is thought to be less irritating than the former.

Reactions to this type of therapy are not frequent and consist of irritation to the mouth and throat and to the skin. For this reason, the mouth and throat should be rinsed following each treatment and particularly if the stronger concentrations are used. Transient fever and urticarial reactions have been observed, but they

are rare and usually subside without stopping the treatment.

The techniques and results of penicillin aerosol therapy have been reviewed by the authors⁴ and by Segal⁵. In bronchiectasis there has been a marked reduction in the number of penicillin sensitive organisms present in the sputum and this usually is accompanied by reduction in the quantity, viscosity, and odor of the sputum. There has also been a reduction in the cough and an increased sense of well being. The duration of the improvement is variable, but there is a very definite tendency to recurrence of symptoms, especially following upper respiratory infections. Continuation of penicillin aerosol therapy over a long period of time may be effective in maintaining the improvement, although prolonged observations have not been made as yet.

Penicillin aerosol has proved helpful in many cases of lung abscess. In some cases the administration has been curative and in others has been valuable in the preoperative preparation for surgery.

Penicillin has little if any effect in bronchial asthma, except in those cases in which bronchial infection is an etiologic factor and the causative organisms are penicillin sensitive.

TRACHEOBRONCHIAL TUBERCULOSIS

There has been an increasing interest in this phase of pulmonary tuberculosis as is evidenced by the number of articles appearing in the medical literature.⁴ The occurrence of this complication affects the prognosis and treatment of the parenchymal lesion and its diagnosis is receiving greater emphasis than ever before. It is thought that the incidence of tracheobronchial tuberculosis in patients admitted to sanatoriums is between 10 and 15 per cent and that it increases during the sojourn in the sanatoriums. The incidence of tracheobronchial tuberculosis found at autopsy in patients dying of tuberculosis varies between 40 and 70 per cent.

The initial lesion in the bronchi consists of the tubercle; this lesion may spread and coalesce to produce ulceration and hyperplasia, and this stage is followed by fibrosis in the healing process. The lesion in the bronchus may show all these stages at any one time, although one particular stage usually predominates. The most frequent site of involvement is the left main bronchus and the next most frequent is the right

main bronchus about the right upper lobe bronchus.

The most consistent symptoms and findings of bronchial tuberculosis are those related to bronchial obstruction, such as wheeze or rhonchi, obstructive emphysema, atelectasis and drowned lung. Other symptoms suggestive of bronchial involvement are cough of unexplained severity or productiveness, hemoptysis, intermittent fever, and sensations of itching, smothering, or of a foreign body in the chest.

Bronchoscopy is indicated if there is a suspicion of endobronchial involvement or if the treatment to be instituted would be profoundly affected by the presence of endobronchial involvement. Bronchoscopy is contraindicated in the presence of hopelessly far advanced tuberculosis in its terminal stage, pulmonary hemorrhage, during upper respiratory infections, and in the presence of an ulcerative tuberculous laryngitis. The technique of bronchoscopy is similar to that for other conditions; however, the abnormal sensitivity of the mucosa to trauma should be constantly considered and every effort made to reduce trauma and coughing.

The information to be obtained from the bronchoscopy includes the following: type of lesion, location, extent of the lesion, and presence or absence of bronchial obstruction. Bacteriological examination of the secretion removed through the bronchoscope may give information on the type of secondary infection which may be present.

Treatment of the lesion or of the obstruction may be done through the bronchoscope. Active treatment of the endobronchial lesion usually consists of the application of silver nitrate solution, although the efficacy of this treatment is open to question. In the cases of bronchial obstruction with retention of secretion, aspiration of the retained secretion may be of great value. Dilatation of the fibrous stenosis may likewise be indicated, although permanent improvement may not result.

The presence of endobronchial tuberculosis as a complication of pulmonary tuberculosis definitely alters the outlook toward a more guarded prognosis, especially in regard to duration of the disease. The results of paralysis of the diaphragm and pneumothorax are not as satisfactory in those cases with this complication and dem-

onstrating its presence bronchoscopically may even mean that these therapeutic procedures are contraindicated. Thoracoplasty and, in the severe progressive lesions, pulmonary resection, appear to be the surgical treatments of choice. It is to be emphasized that our knowledge of endotracheobronchial tuberculosis and its significance is incomplete and that experience may necessitate revision of the thoughts expressed here.

BRONCHOGENIC CARCINOMA

The incidence of bronchogenic carcinoma is increasing in the population to the extent that it ranks second in frequency in types of carcinoma among males. Great strides have been made in the surgical treatment of this condition so that the early diagnosis of bronchogenic carcinoma is essential. Bronchoscopy is of major importance in the early diagnosis and is indicated in every patient presenting symptoms or findings suggestive of carcinoma.

The four cardinal symptoms of carcinoma of the lung are cough (which may or may not be productive), thoracic pain, "unresolved pneumonia", and dyspnea. The occurrence of the latter symptom is usually late and the lesion has generally progressed to an inoperable state by the time it becomes evident. The symptoms are generally related to pressure and obstruction within the bronchi and the lung parenchyma, and to extension or metastasis. In a series of 175 proved cases of bronchogenic carcinoma cough was the most frequent initial symptom as well as the most frequently observed symptom.⁶

The similarity between these cardinal symptoms of carcinoma and the symptoms of pulmonary suppuration makes the differential diagnosis difficult in the early stages. In the latter stages the differentiation may be obvious; however, by that time operative treatment could not be considered. The use of chemotherapeutic agents in an effort to relieve the initial pneumonic process may result in a disastrous delay. This is particularly true in those cases in which suppuration is an early complication of the neoplasm.

All patients in the carcinoma age group who develop pneumonic symptoms should be suspected of having carcinoma until proven otherwise. In the above mentioned series 50 per cent of the patients had had their symptoms for more than

six months, and consequently many of these patients were inoperable because of the extent of the tumor. Although repeated biopsy may occasionally be required, positive tissue may be obtained in over 75 per cent of cases by bronchoscopy. Herbert and Clerf⁷ have recently emphasized the importance of the histological examination of the secretion removed bronchoscopically, and this procedure makes possible the positive diagnosis in an additional proportion of the cases. Certain bronchoscopic findings in the absence of positive biopsy or secretion may, when correlated with the x-ray findings, permit a positive diagnosis. These bronchoscopic findings are bronchial compression, bronchial distortion and widening of the carina, and these findings are particularly significant when combined with rigidity of the trachea or bronchi. Paralysis of the recurrent laryngeal nerve may be a positive sign and is usually the result of invasion in the region of the arch of the aorta on the left side and of the subclavian artery on the right. Exploratory thoracotomy, examination of pleural fluid, biopsy of metastatic glands, needle aspiration of the tumor and sputum biopsy are other diagnostic procedures.

The bronchoscopic appearance of bronchogenic carcinoma is extremely variable. The most frequently observed types are the soft red papillomatous type and the polypoid mulberry-like type. Frequently the lesion is covered with exudate, necrotic debris, purulent material or granulation tissue which may require removal before a positive biopsy may be obtained. Some carcinomas may extend within the bronchial wall producing induration and rigidity, but without breaking through the bronchial mucosa at a point visible bronchoscopically. Because of the angle at which the upper lobe bronchi leave the main bronchi, tumors in these areas may not be visible. Atelectasis of the upper lobe may distort the bronchi so that visualization is even more difficult than in the normal. The retrograde mirror and telescope may help in the visualization of these tumors. Artificially induced pneumothorax may push the upper lobe downward so that the bronchi may be better visualized.

The bronchoscopic examination contributes information which is of value in determining the operability or inoperability of a carcinoma. The exact location of the lesion, its character, rela-

tionship to surrounding structures, and extent along the bronchial wall are significant obtainable data. Evidence of extension to the mediastinum may be noted by the presence of laryngeal paralysis or alterations in the area of the bifurcation of the trachea consisting of widening, distortion, irregularity or rigidity of the carina.

Surgical extirpation of the lung is the treatment of choice in bronchogenic carcinoma, and because of its success renders early diagnosis the only hope for a cure of this disease. Irradiation therapy either by x-ray, radon implantation, or by radium rarely gives more than palliation and generally causes a more rapid exodus.

SUMMARY

Significant recent changes in the management of pulmonary disease justify a review of bronchoscopic aids in the diagnosis of pulmonary pathology. In pulmonary suppuration or acute pneumonic processes, penicillin administration intramuscularly as well as by means of inhalation has resulted in brilliant cures. However, the administration of penicillin before accurate diagnosis of the etiology of the suppuration is made has led to great delay in recognizing the presence of a bronchogenic carcinoma or other bronchial obstruction responsible for the suppurative process. Bronchoscopy aids in locating such etiologic factors, in the removal of tissue for biopsy in neoplastic disease, and in establishing and maintaining drainage in suppurative conditions. Improvement in the techniques of thoracic surgery with the brilliant results achieved by resection in both the neoplastic and suppurative conditions justifies re-emphasis of early diagnosis.

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PROGRESS IN NEUROLOGY AND PSYCHIATRY

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Neurological and psychiatric practice presents to the physician a rich profusion of symptoms and clinical signs. The mixture of somatic manifestations of the central nervous system, may it be of cerebral, spinal or peripheral neuropathy, is commonly veiled by psychological complaints of intrinsic or extrinsic conflicts. The somatic examination will assess the relative value of certain anomalies of motility, sensation, reflexes, of equilibrium, coordination, or of the special senses, and accordingly we refer to signs which (1) might, (2) which usually do and (3) which always suggest organic involvement of the nervous system. The psychiatric examination evaluates (1) the degree of mobilized normal anxiety — an unpleasant emotion signaling a threat to the personality from either without or within — as a sequence to physiologic changes of ostensible causes from unrelated abnormal major types of psychoneurotic reactions, i.e., hysterias, phobias and obsessive-compulsive behavior and (2), mental disorders of functional endogenous character from those of organic — disease related — nature. Thus the complex picture of the examination presents the psychosomatic disorder which may be predominantly somatic with a normal or abnormal overlay of psychologic symptoms or the psychological and psychiatric features bordering sometimes on simulation of nervous and mental diseases may overshadow entirely an insignificant temporary illness. The sifting of clinical evidences and the recognition of emotional, intellectual, orientational maladjustments in the personality structure is even in the hands of experienced physicians a difficult task. The various medical, physical, dietetic therapies must be tried, but firm and constructive psychotherapeutic guidance enhances our desired results.

NEUROLOGY

The problem of therapy in meningitis is no longer baffling with serum, sulfa drugs and penicillin at our disposal. The specific etiology

must be established at once by spinal fluid examinations and blood cultures and the individual dosages for the various drugs must be worked out in each case. A blood level of at least ten to fifteen milligrams and a spinal fluid level of seven to ten milligrams must be built up quickly by initial intravenous loading doses in sulfa therapy. Depending upon the clinical response or failure penicillin by the continuous intramuscular drip or three hourly injection method, type specific serum or antitoxin must be added. I am not a believer in routine intrathecal medication of penicillin or serum and question the statement in the literature that early intraventricular or intrathecal treatment prevents leptomeningeal adhesions with subsequent liquor pocketing. Mechanical procedures in the form of punctures at various levels with air inflations are often necessary to break up adhesions.

The virus infections of the cerebrospinal axis, the demyelinating disorders especially multiple sclerosis and even poliomyelitis remain an unanswered question to our specific therapeutic efforts. The classification of the demyelinating diseases cannot be carried out satisfactorily to clinicians and pathologists because so little is known about their etiology. In the present state of our ignorance we group demyelinating diseases according to the clinical and pathological features, and therefore controversial discussions concerning the varieties of diffuse sclerosis or the relationship between acute disseminated encephalomyelitis and acute disseminated sclerosis and neuromyelitis optica is mainly with words. The forms of acute disseminated encephalomyelitis which follow a known predisposing cause, for example measles, (five days after the rash) small pox, vaccination (11th day); or antirabic inoculation suggest that the post-infectious encephalomyelitis is due to the virus of the primary infection. However the allergic or hyperergic theories assume that the nervous system has become in some way sensitized to the virus which explains the similar pathological reactions to different viruses. Neuroallergy is an interesting and important field of research about which we talk much but know very little if anything.

Multiple sclerosis is characterized pathologically by the existence of fundamentally uniform glial scars scattered throughout the white sub-

stance of the nervous system. It is by no means a rare disease. It occurs in acute and in chronic relapsing forms with a great variety of symptoms; i.e., weakness or numbness of one, two or all extremities, ataxia, nystagmus, diplopia, speech disturbances, retrobulbar neuritis with central scotomata, disturbances of bladder functions and emotional lability. The acute fulminating encephalomyelitis has fever, headaches, stiffness of the neck, convulsions, hemiplegias, oculomotor palsies and commonly optic neuritis and tends to improve or may even disappear upon rest and supportive therapy. Spinal puncture helps in differentiating the disorders from syphilis, tumor, hemorrhage and infections of the central nervous system. Only in the acute type do we have a high cell count with pressure elevation, whereas in the chronic or relapsing forms the cells are increased to below 100, the protein is slightly elevated in 20%-30% of the cases but in 71% do we have a characteristic gold sol curve in the left or syphilitic zone (5555432100). The prognosis in multiple sclerosis must be guarded, as isolated, transient and light symptoms disappear in the far higher proportion of cases than in those cases with severe symptoms at the outset. However, keep in mind that the disappearance of signal signs does not indicate permanent arrest of the dispositional factors for progressive and clinical demyelination. Rest, vitamin B complex, liver injections, high butter fat diet, heparin-dicoumarine and histamine infusions are our therapeutic efforts today.

A few words suffice to explain the present status of treatment of *syphilis of the central nervous system*. In neurosyphilis penicillin is not fulfilling its expectation and at present I would state that penicillin is not an efficacious drug in our antiluetic therapeutic armamentarium. Malaria or fever treatment in combination with mapharsen, tryparsamide and bismuth are superior and cure the meningeal and parenchymatous types. We have not been able to alter the Wassermann serology of central nervous system syphilis with large, continuous and repeated medication of penicillin although a certain amount of physical well-being has been obtained in some patients.

The pathological physiology of denervated muscles with the most obvious and interrelated features of degeneration such as atrophy, fibril-

lation and changes in chemical or electrical excitability remains fixed in the literature on the destruction of contractile elements, on the absence of vascular conditioned rhythmic muscular contractions and on disturbances of the neuromuscular transmitter or endplates. Dean Carey's (Milwaukee, Wisconsin) micropressure wave mechanism in striated muscles with its clear photomicrographic evidence disproved the sarcomere theory of Krause. Carey's anisotropic contraction nodes, the isotropic internodes with nuclear alterations upon cytoplasmic pressure or metabolic changes have, as yet, not sufficiently aroused the clinical investigator. Muscle is not a fixed unit of anatomic or myotomic structure. Its metabolism is never static. Electromyographic studies prove these statements. Creatine and creatinine, proteolytic and tryptolytic enzymes, calcium, phosphorus, potassium studies, the vitamins or oxidation researches have not benefited the sufferers from muscular atrophies or dystrophies nor have they established a primary etiology of myo-deficiency. Myotonias (quinine) and myasthenias (prostigmine) can be controlled in their clinical symptomology but the etiology of the disease processes remain obscure. All patients with myasthenia gravis should be subjected to x-ray studies in an effort to diagnose thymic involvement early so that irradiation and surgical removal can be essayed in the treatment. The neuritic symptoms in the muscular disorders are commonly relieved by the whole vitamin B complex but the more specific muscular symptoms respond better to wheat germ oil. The possible relations of vitamin E to muscle protein metabolism, to the hypothalamus and pituitary gland remains controversial. Vitamin E (tocopherol acetate or ephynal acetate) plus vitamin B is often an ameliorator of amyotrophic lateral sclerosis. Muscle studies have been neglected in the past and the general statements of orthodox muscle physiology cannot be accepted any more today.

George B. Hassin's (Chicago) clarifying studies on the histopathology of diseases of the central nervous system have been augmented in recent years by most constructive investigations on the histopathology of various myopathies. He states that progressive muscular atrophy (Aran-Duchenne type) and progressive muscular dystrophy are the most common forms of mus-

cular wasting, that they differ in intensity and in fatty transformation, that in both the degenerative changes in the affected muscles are accompanied by myophagia for the purpose of removing the damaged tissue, — fragment of muscle fibers act like foreign bodies, — and to render it harmless. In progressive muscular atrophy the spinal cord (thoracic > cervical > lumbar segments) reveals a scarcity of nerve cells and nerve fibers much more in the ventral horns than at the base of the posterior horns, the former being deformed in size and shape, packed with Nissl granules and reduced in dendrons. Embryonic muscular malformations enter into the picture of various myopathies. W. Freeman (Washington, D. C.) differentiated recently amyotonia congenita (Oppenheim) from infantile spinal muscular atrophy (Werdnig-Hoffman) by demonstrating in four cases of Oppenheim's disease "an almost complete absence of the large multipolar cells of Betz in the precentral gyrus, a less richness in cells with miniature columnar orientation of the cells in the post-central cortex and a notable deficiency in myelinated fibers and of paucity of multipolar elements in the ventral horns without degeneration or reaction about empty though developed cell beds."

Fibrillation occurring together with muscular wasting suggests a lesion of the anterior horn cells. Fibrillation entails the almost constant quick flickering of isolated nerve-muscle fibers and must be differentiated from fasciculation which comprises a coarser and less constant contraction of group of muscle fibers. It occurs quite commonly only as a temporary symptom in fatigue, after physical over-exertion or severe tension states and is not alarming at all.

The problem of vascular hypertension and its etiological theories are known to you. Fortunately the degree of arteriosclerosis visualized at a comparatively early stage in a characteristic retinal pattern (arterial calibre narrowed, brilliance of the arterial walls, arteriovenous nicking, flame shaped hemorrhages, cotton wool exudate or edema of the discs) mirrors in advanced malignant cases similar pathology in the cerebral or peripheral arteries. Discal edema in malignant hypertension, however, does not denote increased intracranial pressure as attested by an increased cerebrospinal fluid pressure. Since the thickness of the walls of cerebral

arterioles reduces the caliber of the lumen, it thus interferes with regional or diffuse parenchymal nutrition. The common vascular lesions responsible for clinical symptoms are (1) intracerebral and extracerebral edema, (2) spasm with minute softening, (3) multiple miliary lesions such as hemorrhages or infarcts, (4) massive hemorrhages. The symptoms of "one" and "two" can be ameliorated by mechanical dehydration procedures, by vaso-dilators, fluid restriction and diet. The spontaneous intracerebral hemorrhage with a resemblance of the neoplastic syndrome can be surgically explored through a burrhole with aspiration of the blood. It may and has been the life saving intervention in comatose apoplexy.

The surgical treatment of hypertension is one of the greatest accomplishments in modern medicine to alleviate the afflicted ones and to control progressive irreparable damages. The selection of cases for this surgery on the sympathetic nervous system requires *first*, an age limit of preferably not over 50; *second*, adequate renal function as indicated by a urea clearance of more than 40% of normal and a urine concentration above 1.012; *third*, cardiac compensation and an adequate physical status to withstand surgery. Smithwick's recommended surgical method is a bilateral transdiaphragmatic removal of the lower dorsal and the upper lumbar sympathetic chain with its ganglia and the rami forming the splanchnic nerves. Peet's operative procedures of bilateral supradiaphragmatic splanchnicectomy and lower dorsal sympathetic ganglionectomy has given excellent lasting results. The effect of the surgical intervention is not temporary. It should be recommended in early hypertension and in cases approaching the clinical criteria for imminent malignant hypertension. Not only do the subjective symptoms of hypertension disappear but the surgery brings the blood pressure back to an accepted nondangerous level. It improves the renal functions and arrests cardiac damage. The surgery on the nervous system in the form of cervicothoracic sympathectomy is advisable in painful acrocyanosis, necessary in early Raynaud's disease, and in those severe vascular spasm cases of pains in the limbs with intermittent claudication.

Headaches are caused (1) by dilatation of and by traction on pain sensitive intracranial vascular

structures such as the dural sinuses, the middle meningeal and the middle cerebral arteries, (2) by direct pressure of neoplasms on cranial or peripheral nerves containing afferent pain fibers from the head. As a localizing aid headaches are very limited by the fact that supratentorial irritations of pain sensitive structures are expressed vaguely as pain in front of a line drawn vertically from the ears across the top of the head, whereas infratentorial irritations — of greater intensity — of pain sensitive structures are localized behind this line. Pathways for the former are contained in the 5th, for the latter in the 9th and 10th cranial nerves and in the three upper cervical nerves (the "pain in neck syndrome" of the 4th ventricular tumors). Headaches are a frequent symptom in many organic-neurological and functional-psychogenic disorders. The intensity accompanied by progressive hypersomnia or lethargy is of sinister importance, since the combination denotes increased intracranial pressure and is supported by nausea, vomiting and by an elevated systolic blood pressure with a slow pulse rate. Hence careful investigation of the history and of the clinical status is imperative to diagnose the causative factor; but keep in mind that migraine, epilepsies, hypertensive encephalopathy or metabolic intoxications present severe headaches with postictal drowsiness. An acute bout of severe headaches with stiffness of the neck, however, is seen in acute subarachnoidal hemorrhage, in the acute phase of meningitis and in the fulminating coccal meningoenzephalitis. Headaches associated with insomnia are more or less characteristic of psychological = psychoneurotic origin. It excludes with almost certainty a progressive intracranial lesion, but syphilis of the central nervous system and obstructive hydrocephalus must be eliminated as a possible cause of the combination severe headaches with drowsiness.

The headaches for us physicians remain the migraine patient with his familial disposition. During a migraine attack we have painful distension or dilatation of branches of the external carotid artery which is visible in the ipsilateral superficial temporal artery. Ergotamine tartrate produces vasoconstriction and reduces the amplitude and rate of pulsation in the branches of the external carotid artery by some 50%; the rate of diminished pulsation amplitude parallels

the gradual reduction of painful hemicrania. A new Sandoz preparation D.H.E. 45 has eliminated the unpleasant side effects of nausea, vomiting and muscle pain of ergotamine tartrate and additionally Sandoz's new drug eliminates possible ergotism.

The "nocturnal" regular occurring histamine headache is an allergic congestive phenomenon about the meningeal arterial tissues and is due to the thrust of heightened arterial pressure upon dilated cerebral vessels, stretching of which causes pain. The diagnosis is established by intracutaneous testing with subsequent desensitization according to Horton's schedule.

The dual mechanism of Menière's syndrome is caused either by primary vasodilation with overproduction of endolymph and functional interference of the cochlea and vestibule or by a much more common primary vasoconstriction — a spasm — with temporary anoxia of the cochlea and vestibule. Surgical division of the vestibular nerve is no more the final answer to treatment than is nicotinic acid, potassium chloride. Fürstenberg's salt free diet with ammonium chloride or histamine.

The modern diagnostic methods in intracranial and spinal tumors have facilitated an early detection of neoplasms. Radiography focuses attention on osseal abnormalities, on calcification in the tumor and on displacement of the pineal body. Pneumoencephalography or ventriculography informs us of the contours of the subarachnoid space, the size, shape, position and patency of the ventricular silhouette and of the nature and extension of the tumor. Arterial encephalography with thorotrast — really a cerebral angiography — renders the blood vessels of the anterior and middle cerebral arteries visible and permits differentiation of highly vascular tumors (glioblastoma) from meningiomas, aneurysms, angiomas and vascular degenerative disorders. Electroencephalography (E.E.G.) which records the normal and abnormal electrical activity in the brain of living beings, was introduced by Hans Berger, in 1924, as a diagnostic clinical method. It has opened up a vast field for investigation in neurophysiology and in clinical medicine. The electroencephalograph lends itself especially to the study of cortical responses to various forms of sensory stimuli or irritations. Abnormality of the brain waves and disordered

rhythm of brain potentials have given us new facts about the story of the epilepsies, so that the classifying diagnosis of epileptic seizure type often can be made. In grand mal seizures the normal frequency of the brain potentials of eight to twenty a second waves increases to twenty-five to thirty a second, and appears as sharp spikes; in petit mal epilepsy quick, sharp spikes and slow round waves of three a second alternate; whereas, in psychomotor attacks the slow rate of three to four a second has predominantly square, notched, flat topped waves. The clinical observation remains however paramount, since the forms of clinical seizures cannot be predicted accurately from the electroencephalogram. Gibbs and Lennox have obtained extremely interesting facts from the study of relatives of epileptics with this method and state that abnormal records were found in 60% of the relatives of epileptics, of whom 24% were themselves epileptic, with only 10% in a control group with no history of seizures. Lennox states: If a person with epilepsy will choose a mate who has a normal brain rhythm his chances of having offspring with epilepsy is greatly reduced. His chances of normal offspring are greater than those of parents both of whom have no present or family abnormality but have brain waves of abnormal frequency.

Problem children, causeless behavior disorders, aggressive tantrum spells, psychopathic personalities and mental disorders present in a high percentage paroxysmal cerebral dysrhythmias, therefore such "equivalent states" the type of the wave and rhythm pattern should direct a selective drug therapy as an adjunct to the guidance program in such cases.

The therapy of epilepsy incorporates many problems. On the physical side we must map out a specific program which includes hygiene, nutrition, work and play. I concur in Peterman's opinion, that ketogenic diet tends to alter the physico-chemical state or the metabolic activity of the body favorably correcting the underlying disturbances of brain cell physiology in epilepsy. Ketogenic diet is effective in petit mal epilepsy as attested clinically and by the electroencephalographic record. The drug schedule should never be static. Bromides, phenobarbital, mebaral, sodium diphenyl hydrantoinate (Dilantin) alone or in combination must be adjusted

in the individual case from time to time. The petit mal seizures occur predominantly in patients under the age of twenty years, more likely in the early hours of the day and upon emotional excitement without an aura or post-seizure after symptoms. This type, the myoclonic flexor jerks and the akinetic epilepsy with sudden loss of postural control and collapse for seconds or minutes have been refractive to drugs, but have been benefited by ketogenic diet, by benzedrine or caffeine, by glutamic acid. The newest drug, Tridione, a non-soporific drug, offers a cure for petit mal and like seizures but is ineffective for grand mal seizures.

Prefrontal leucotomy (lobotomy) is a neurosurgical procedure of cerebral surgery which ameliorates biogenetic psychoses or psychoneurotic reaction formations by cutting those fiber pathways in the central core of the white matter within each frontal lobe which convey dynamic interchanges between frontally derived psychological impulses and the affect-grading thalamus. Sectioning the fiber bundles from the frontal lobes results in degeneration of the dorso-medio-nuclei of the thalamus which in turn produces alternation in emotional responses by disrupting ideational with affective experiences. The indications for lobotomy are, (1) intense and fearful apprehension with intractable obsessive preoccupation and agitation as seen in obsessive — compulsive neurosis and in severe chronic anxiety states; (2) the chronically agitated and tormented involutional patient whose physical condition precludes electric shock therapy; (3) the aggressive delusional and terrified hallucinating disturbed schizophrenic. However, all other forms of conservative treatment should be employed first and if these efforts fail, lobotomy is justified. The immediate effects of the operation are quite dramatic, some late effects are inertia, euphoria, increased suggestibility, procrastination, convulsive seizures. The patient's ideas no longer dominate the emotional behavior. The social adjustment in terms of working capacity and ability to live outside an institution was obtained in half of the 331 patients of Freeman and Watts, one-quarter remained home and one-quarter are dead or institutionalized in a nine years survey. Lobotomy fails in deteriorated cases but facilitates the patient's management. The operative mortality is under three per cent.

PSYCHIATRY

The principles and practice of psychiatry are no more esoteric and unfathomable than any other branch of our profession. Before we contemplate differentiating psychoneuroses and psychoses, let us briefly review psychiatry today.

Psychiatry is a dynamic science, no longer a step-child of internal medicine and not confined anymore to walls of state institutions unfortunately still called "insane asylums." The incidence of mental illness in civilian life is such that one out of every 22 persons will at some time be hospitalized because of psychoneurotic or psychotic illness. Psychiatry is in over 75% an extramural practice of medicine since intertwining of psychological and medical symptomatology is much in favor of the former. We know from the daily visitors to your offices, without organic structural pathology or physical signs, that well over one-half suffer from functional disorders. In these patients are non-visible forces, i.e., psychological factors at work, which disturb his or her relationship to the world in which they have to live and work. They need understanding, recognition, and alleviation. The constitutional and intellectual endowments with modifications by environmental experiences, the biological emotional forces: love-fear-hate and such social drives as religion, social standards and conscience, all these fuse our personality, motivate our behavior and symbolic reactions into patterns of integrated dynamic harmony, so that we adjust to situations from within or without in a well balanced fashion of reasoning. The goal of psychiatric investigation is to find not only by co-operative searching the etiologic factors of motivational conflicts, which are often unknown to the patient, but at the same time to eject or eliminate by encouragement, by explanation of the forces for his illness and to assist to reorganize life, behavior and attitudes. Since this effort is tedious and impossible without the patient's cooperation and confidential relationship, it is neglected by the profession in many intractable, discouraging cases. This means that the static concepts of personality structure have been replaced in operational analyses of the total personality function. The psychiatric terminology must become consistent with the language of other medical sciences. Many physicians dislike to be psychiatrically minded, and shun evalu-

ation of psychogenic complaints by applying such prefixes to his client as neuro-, psycho-, or by giving detrimental loose talk: "Pull yourself together, be yourself, forget about it, use your will power," or "you should be ashamed, you are crazy, you like to be sick." Psychogenic conflicts, however, are very painful and disrupt personalities, they create headaches, head shaking, tremors, convulsions, fears, phobias, resentment, anxiety, sexual fixations, depressions, and may imitate all known entities of illness. Therefore, we must recognize, by releasing repressed feeling, experiences in life and unpleasant conflict reactions in therapeutic sessions.

First recognize the forces at work and understand the conflict by letting the patient tell the whole story (analysis in the broadest sense). Then let the patient understand the dynamic mechanisms of suppression, of repression and of regression, so that he comprehends somewhat the dissociated blunted state of his unconscious mind. Thereafter, select the choice of method of psychotherapy. No reasoning argument, persuasion, exhortation or threat will cure or even help unless the situational factors are understood by the physician as well as by the patient and released by a superficial method of psychotherapy, i.e., plain discussion but artfully applied, so that the patient can straighten out and regain a new hold on himself. (Interpretation, suggestions, persuasive rationalization, re-education, guidance, relaxation training).

Difficulties of guilt, of inferiority, of compulsive acting may arise from childhood experiences as an inferiority feeling of a son against a domineering father or as a complex with libidinous fixation, or from difficulties occurring in the second half of life.

The prevention of neuroses should begin with factual situations predominantly occurring in childhood or in the psychosexual adolescence period of life. The aim of education is learning and understanding even the disturbing situations, and by a conscious striving to overcome such difficulties with the goal for independence, for courage, for social security and for happiness. Changes in environment, in school, in many jobs and of personal associations are often necessary to prevent an inferiority feeling and its compensatory egotistic, selfish traits, the mother or parents fixations, the fears to make decisions or to be defeated or to adjust to new and often

not pleasant social contacts. Adherence to the known only, but anxiety for the new and unforeseen builds up hesitancy attitudes for almost any situation in life, with a frequent desire to attract attention. Since the family is often not qualified to guide the child, we must utilize the school facilities for guidance to find the causative reasons for conflicts in the shy, timid, or non-assertive, egocentric pupils, or the school psychologist or psychiatrist for those children with antisocial, withdrawl tendencies or for those with incorrigible, non-conformistic attitudes. The child and the adult too cannot live happily or at ease unless he appreciates the good opinion of his daily associates and unless his social conscious thoughts and feeling are not in conflict with human relationship. Instincts are subconscious feelings in humans which are not learned, acquired, but which are born from spontaneous drives for self preservation (ego instincts) and for preservation of the species (sexual instincts). Deviations from normal reactions present complex ways of behavior which often have the purpose of evading tasks and demands of life, but at the same time the person tries to maintain the now unattainable goal of self esteem. The inability to solve life situations adequately and satisfyingly leads to an unconscious conflict with multiple forms of sufferings so that new demands of society are too heavy for a solution and naturally various often erroneous maneuvers ensue to circumvent them by compensation. Improper handling of sexual drives, — sex in the broadest connotation, not only sensual instincts but all phenomena appertaining to human propagating, — create conflicts with the accepted ideals of a self conscious and repressed society, and thus build up many symptoms which when formed actually make up psychoneuroses. However, I wish to make it clear that not all psychoneuroses are sex based. In the coping for selfpreservation and approval from public opinion the native egocentric motives such as fear, greed, doubts, to name only a few, often overstep accepted boundaries which under self analysis classify us as anxious, shameful, uncertain, and even conceitful. The ego struggles with the powerful impulses of the Id and by denying outlets or by rejecting or repressing these Id impulses, the ego must make substitution to give satisfaction which can be done only by compromising which means

complaints. This conflict is called the ego neurosis in which situations and environment of the patient play a much more important role than sex. However, let us not forget that the basic personality and the primary instinctive ego urges of the patient are really necessary foundation stones for the development of neurotic maladjustment. In this category belong the also situational, the combat, the traumatic, the compensatory neuroses. Neurotic phenomena are, (1) the expression of disturbances in our relationship to others; (2) the demands to social adjustments are too heavy and evasion with hysterical conversion symptoms are the result; (3) a flight, a retreat, or a fear from responsibility or genuine participation in life situations with the maneuverings into often painful psychosomatic symptomatology.

If an underlying neurotic anlage adheres constantly to the existing reaction pattern as the only feasible self expression for his suffering, in whose reality he stoutly believes while under psychotherapy, then the patient is presenting a resistance factor which cannot be overcome by superficial short psychotherapy. Here one must understand Jung's personality concept which assumes that part of the personality is consciously realized whereas the other part is buried in the unconscious sphere.

Psychotherapeutic measures are necessary in any medical treatment since they appeal to both emotional and physical integration of a patient, and permit an attack on the very cause of his difficulties and subsequently the disintegration. Therefore, psychotherapy is not limited to the treatment of psychoneurotic patients but incorporates also physical disorders of psychological origin, i.e., bodily feelings, social relationship, and environmental awkwardness, and also the psychic components of organic diseases. Non-specific differs from specific (genetic dynamic) psychotherapy. The former like symptomatic treatment in medicine aims to relieve the patient of his complaints without getting down to the root of his illness by attentive listening, sympathetic understanding and rapport relationship which often relieves emotional tension, anxiety, and psychomotor complexities and thus facilitates the patient's acceptance of our positive suggestions which must be supported by sedatives, hydrotherapy or physiotherapy. Specific psy-

chotherapy endeavors to find the dynamics (cause or causes) or mechanisms (cause of action) of the illness and attempts to make the patient relive and face the past experiences so that understanding of the relationship of unconscious attitudes to realities and to his complaints is reached. Repressed, deeply seated, buried unconscious experiences or complexes as its essential dynamic factors require Freud's psychoanalytic free association technique. If "painful" psycho-pathological experiences in the past are the main dynamic factors in the illness, then a longitudinal study of his life-personality study throughout life including dream analysis-brings to light by free, frank and active cooperation the conscious or submerged life experiences, the relative defense reactions, the idiosyncrasies and the painful recognition to problems, situations, and environment. The goal is then to recognize, to loosen, and to release repressed emotions by so-called abreactions, to desensitize against the memories of anxiety producing situations. This is achieved by reliving traumatic experiences and to neutralize guilt-failure-fear feelings by substituting mature attitudes and activities.

What is psychoneurosis of war? Is it a problem for the country to face now or in the future? Each psychoneurosis is an expression of the reaction of the individual toward situations in his life which he is unable to handle in a manner compatible with his health and which is presented in complaints and words at a psychological level.

The differential diagnosis between psychoneuroses and psychoses is not always an easy one because of the now uncommon transformation of symptoms from the former mixing with the latter, i.e., neurasthenia into manic depressive psychoses, depressed neurotics into schizophrenia, or schizoid pattern neurosis into an obsessional psychosis. Descriptive (what?) and qualitative (how?) criteria from the patient's statements may give us a lead for a cursorily clinical impression. The more serious mental conditions of a subpsychologic level suggests psychoses (social incompatibility; a total depersonality reaction), whereas the less serious ones imprint psychoneuroses (physiologically tension, psychologically symbolism). Psychoneurotic persons are normal persons. Among psychoneurotic personality disturbances we find: (1) exaggerated

needs and intensity for love, sympathy, attention, and security; (2) expression of intense resentment, aggression, hate, domination or submission; (3) egocentricity, over-subjectivity, hypercritical tendencies; (4) lack of social interests and immaturity. The schizophrenic psychoses present definite reality rejection and evasion, more regressive behavior, appeal to phantastic and distorted complaints with shut-in, introverted personality complicated additionally by delusions and hallucinations.

Psychoneuroses are caused largely by maladjustment to interpersonal emotional reactions engendered by conflicts. The descriptive classification into 8 or more syndromes with much overlapping of these subdivisions unnecessary since four suffice for understanding. They are: (1) neurasthenic and hypochondriacal reactions; (2) obsessive compulsive reactions; (3) anxiety states; (4) conversion hysteria. Of these, 3 and 4 offer a favorable prognosis.

War neuroses develop from "not conscious" conflicts which are present in every man within the zone of combat. They represent a psychopathological compromise to a variety of feelings, the conversion of such conflicts into physical signs and symptoms, or a marked display of anxiety. The type of neurosis depends upon the particular markings of the succumbing personality and his somatic emotional threshold. Fear or anxiety with additional extraneous influences create motor hyperactivity, aggressive attitude, depressive to catatonic stupors with concomitant physical signs as sweating, palpitation, irregular breathing, and predominant G. I. or G. U. dysfunctions. Let us briefly discuss the commonest of all psychoneurotic syndromes: anxiety neurosis. It is a state of acute or chronic attacks of fear without the patient often knowing the reason for his anxiety. Complaints of vague, but distressing nature with tension and dreaming suggest a picture of Grave's disease, of paroxysmal tachycardia or of neurocirculatory asthenia. These fears come in connection with situations (phobias) so that the patient restricts his life more and more. Fatigue and weakness, pain, i.e., overconcern as to their bodily functions without organic causes is its neurasthenic component. If reactive depression with fluctuation in mood occurs, the patient is slowed up in action or thinking, cannot sleep and develops feelings

of guilt with inhibitive symptoms. Anxious preoccupation with the viscera, with food faddism, constant colonic irrigation and phantastic stories of physiological operations in the body, when occurring in the younger group may be a forerunner of schizophrenia whereas in the older group it is hypochondriasis. Patients with stereotyped uncontrollable forms of behavior either at motor or ideational levels such as handwashing, meticulous rituals in dressing, walking, speaking, or touching objects to avoid "dirt" are compulsive neuroses. The patient realizes the folly of silliness to achieve his goal but an obsession compels him to repeat his act over and over. These people are fixed in their thoughts, cannot make decisions, and develop obsessive ideas to perform an act: "Father sees himself throwing his child under a car and therefore refuses to go out with his child; or a mother will hide knives, etc., because of an obsession to stab her child."

Are psychoneuroses like psychosomatic disorders? No, only insofar as they are more or less reversible. They differ, (1) in symptoms; (2) much longer in duration; (3) in most instances they have a known pathological basis (organic disease, duodenal ulcer). Psychosomatic disorders are physical diseases with an accompanying emotional reaction so that cure and improvement is hampered, if the emotional factor remains neglected and is not eliminated.

It is the job of the practicing physician to help, to adjust and to treat not only the psychologically injured, civilian, soldier or rejectee, but he must adjust at the same time the social problems in the life environment of these people. To create for communities necessary psychiatric facilities must be left to the judgment of the physicians in his community until the organized plan provided by the State Medical Society in cooperation with the Society or Mental Hygiene is working effectively.

No one has been able to estimate the cost to the community involved in caring for persons infected by relapsed tuberculosis patients. Probably, the cost is very high in both lives and money. Without vocational rehabilitation, the person recently discharged from a sanatorium has little choice but to return to the type of work he performed in the past, and the same factors that precipitated the original breakdown may soon bring about a second one. Herman E. Hilleboe, M.D. and Norvin C. Kiefer, M.D., *Pub. Health Rep.*, March 1, 1946.

THE TREATMENT OF ACUTE RHEUMATIC FEVER IN YOUNG ADULTS

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Rheumatic fever is the most common cause of organic heart disease in children and young adults. The estimated frequency of acute rheumatic fever in Illinois, while rated below that of the Northeastern and the Rocky Mountain states, still is of considerable magnitude. Because of this high incidence it is an important public health problem in the Midwestern states. It is for this reason that a report is made of experiences in the treatment of acute rheumatic fever in a group of young adults.

At the present time the causative agent of rheumatic fever is unknown. However, Coburn¹, Swift² and Jones³ believe that infection with streptococci of Lancefield's Group A play an important role in initiating or reactivating the inflammatory reaction of acute rheumatic fever. It has been frequently observed that rheumatic fever recurs following tonsillitis, scarlet fever, or upper respiratory infections caused by hemolytic streptococci. 82% of our patients had had some type of respiratory infection preceding the onset of rheumatic fever. Epidemiological studies over a three year period showed that the peak incidence of rheumatic fever occurred one to two weeks after the peak incidence of scarlet fever and other hemolytic streptococcal diseases. Each year the greatest number of cases of rheumatic fever occurred during April or March with cases scattered from the latter part of November through June. This time relationship is of considerable importance in establishing a diagnosis in doubtful cases and in planning methods to prevent recurrences.

Escherich and Schick⁴ have described the disease as occurring in three phases. Phase I: an acute respiratory infection caused by a hemolytic streptococcus of Lancefield's Group A. This may be a severe tonsillitis, scarlet fever or pneumonia, or it may be a pharyngitis so mild as to escape detection. Phase II is a quiescent period during which the patient is convalescing from his streptococcal infection. One to six weeks, usually 14-21 days, after the onset of the respiratory infection Phase III or acute rheumatic

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fever appears. Both Swift and Jones feel that this pattern is of considerable importance in establishing the diagnosis of acute rheumatic fever.

Since hemolytic streptococcal infections are so intimately associated with the initiation and recurrence of rheumatic fever it is important that patients with rheumatic fever be carefully protected from streptococcal respiratory diseases. A simple monocyclic attack may leave little cardiac damage but there is a direct relationship between the degree of cardiac damage and the number and severity of the recurrences. It is important to examine hospital personnel to eliminate carriers of Group A streptococci. Nurses assigned to scarlet fever or respiratory disease wards should not be allowed to contact rheumatic patients. Waves of recurrences pass through a rheumatic fever ward if respiratory infections are carried in by hospital personnel or visitors. In the home, care should be taken that other children or members of the family do not bring in streptococcal infections. No one with a respiratory infection, however mild, should be allowed in the room with a rheumatic fever patient. This is especially true during the period when streptococci are prevalent. In the midwest streptococci in the nose and throat begin increasing in November and December and reach a peak in February, March and April. There is some yearly variation but in general respiratory infections in the late summer and early fall are not associated with hemolytic streptococci. Hence, rheumatic fever is less common during that period.

If a patient on a rheumatic fever ward develops a respiratory infection one gram of sulfadiazine given daily to the other patients will prevent the spread of the infection. In this way transfer of the infection to other patients can be controlled if the causative streptococcus is susceptible to sulfonamide. There is little danger of adversely affecting the treatment of the rheumatic fever and but little danger of toxic reaction with a dose of 1 gram of sulfadiazine daily. Care should be taken in the morning policing of the wards. The dust from blankets and floors serve as a source of respiratory infections. Army studies⁵ have shown that oiling of blankets and floors will reduce the incidence of respiratory diseases by reducing the

dissemination of virulent organisms in the dust. Dry mopping or sweeping should not be allowed. Blankets and sheets should be removed and replaced with a minimum of shaking and disturbance of dust and lint. Many of these apparently trivial factors are of considerable importance in the care of rheumatic fever patients and should be made the object of concern by the physician himself.

An optimal intake of adequate nourishing food is another important factor in the treatment of these patients. Studies on our group failed to reveal evidence of suboptimal nutrition. However, Coburn⁶ has shown that children who contract rheumatic fever have diets deficient in protein, calcium, iron and vitamin A. Many of the children in his study, particularly in the higher income families, had been feeding problems for some years. Other studies^{7,8} have shown reduced blood levels of vitamin A and vitamin C during acute rheumatic fever. Loss of weight or failure to gain is not uncommonly an important sign of rheumatic activity. It is helpful to keep a weekly weight record of the patient which will be studied again when the time for increased physical activity is reached. Secondary anemia is another common finding in active rheumatic fever and iron medication is frequently necessary.

So long as there is evidence of active rheumatic inflammation bed rest is the most important and most reliable method of treatment. No specific measures are known to combat the inflammation itself. When the disease becomes quiescent, physical activity within the limits of the patients capacity should be encouraged. The proper management of the disease is based upon recognizing when rheumatic fever has passed from the active to the inactive stage. It may mean many weeks or months in bed but it is the only known way to minimize cardiac damage. In the majority of patients it is extremely important to appreciate the psychological problems associated with prolonged bed rest. One of the best ways to obtain cooperation and a healthy psychological reaction to bed rest is to stress the fact that restriction is temporary and used only in the hope of allowing more normal activity in later life. In most patients excellent cooperation is received when

the seriousness of the disease is explained in a manner they can understand.

It is essential to have some type of "occupational therapy" or "convalescent training" to keep the patient occupied and alert. In children of school age the school training must continue except during periods of acute illness. This may be carried on by an intelligent mother or by home teachers. It is a tragic situation to see a young man or woman with rheumatic heart disease unable to support himself because of inadequate schooling as a result of long periods of illness. In army hospitals classes were conducted in army training in the hospital wards. Training films were shown. Men continued to study radio mechanics and operation. The making of model airplanes, boats and articles of clothing was encouraged. Every effort was made to prevent the occurrence of "cardiac neurosis". The ward physician had frequent talks with individual patients giving advice on future army and civilian occupations based on the severity of the rheumatic fever and the presence of permanent cardiac damage.

These patients with acute rheumatic fever should remain at complete bed rest until (1) the temperature and pulse are normal for two weeks without salicylates; (2) there is complete freedom from all manifestations of rheumatic activity, joint pain, subcutaneous nodules and skin eruptions; (3) the sedimentation rate remains normal for two weeks without salicylates; (4) hemoglobin and erythrocyte count are normal or are improving; (5) there is satisfactory increase in weight.

Soldier patients were kept strictly in bed for two weeks after the sedimentation rate had maintained a normal level without salicylate therapy. Gradual increase in activity was then allowed unless other evidence of rheumatic activity was present. If the temperature showed slight elevation no activity was allowed even with a normal sedimentation rate. If the pulse rate increased abnormally activity was limited and slowly increased.

Electrocardiographic abnormalities are common. The frequency depends to some extent on the number of tracings taken. 63% of our patients showed some type of progressive electrocardiographic change; 40% showed change in the PR interval. Usually such changes have

disappeared by the time the temperature, pulse and sedimentation rate are normal. PR interval changes are usually evanescent but occasionally the return to normal is very slow. In these cases one always wonders if they might not normally have a full conduction time. Persistent electrocardiographic abnormalities, especially T wave changes, should not prevent increased activity if all other signs are normal.

There is no specific drug for the treatment of acute rheumatic fever. Salicylate, either aspirin or sodium salicylate, is still the drug of choice but all that can be expected is relief of joint symptoms and lowering of fever. Coburn⁹ recently advocate giving ten grams or more of salicylate a day claiming a much more satisfactory control of the disease with a more rapid return of the sedimentation rate to normal and the prevention of the development of valvular heart disease. He also recommended the use of sodium salicylate intravenously in doses of 10-20 grams daily. Coburn determined the plasma salicylate levels in his patients and concluded that a level of 35 mgm. % may be necessary to suppress the rheumatic reaction. Lower levels may be sufficient to relieve symptoms while masking a progressive inflammatory process.

We¹⁰ had the opportunity to check Coburn's work in 98 patients and found that these large doses of salicylate offer only two advantages. First, the fever is reduced more quickly than with smaller doses. The average period of temperature elevation was 11.63 days for small doses and 3.77 days for large oral doses. Second, there is more rapid relief of symptoms in acute pericarditis treated with large doses of salicylate. There were eleven cases with pericarditis. Four were treated with large doses and seven with small. The patients receiving large doses were relieved of their symptoms in 3-4 days while the others were ill for as long as several weeks.

We could not confirm Coburn's conclusions regarding the effect of large doses of salicylate on the sedimentation rate, the occurrence of polycyclic rheumatic fever or the prevention of valvular heart disease. Eighty-eight patients receiving small doses had an average of 45 days of elevation of the sedimentation rate. Ninety-eight receiving large doses, both orally and intravenously, had an average of 54 days eleva-

tion of the sedimentation rate. Statistically the difference between these averages is not significant and there is no real difference in the effect of large or small doses of salicylate on the sedimentation rate. 39.8% of the cases receiving small doses of salicylate and 61.3% receiving large doses had recurrences while under observation. Again, large amounts of salicylate were of no advantage. The development of valvular heart disease was more difficult to determine because of the short period of observation. However, there were seven patients who developed valvular heart disease or showed progression of pre-existing heart disease while receiving large doses of salicylate. Two patients developed aortic insufficiency; two developed mitral stenosis; and three developed probable mitral insufficiency. During the first few days or weeks of the disease large doses of salicylate are of benefit in relieving the symptoms and quickly reducing the fever and toxicity. In acute pericarditis large doses should be used, but continuation of the salicylate until the sedimentation rate is normal does not shorten the course of the disease; does not reduce the incidence of recurrences; and does not prevent the development of valve lesions.

There are no added benefits in giving salicylate intravenously. It offers no advantages over oral therapy in obtaining a rapid elevation of the blood level or in maintaining a high blood level. It often causes severe nausea and vomiting and frequently must be discontinued for that reason. It is less efficient than oral medication in the effect on the sedimentation rate, fever and occurrence of polycyclic rheumatic fever. Intravenous salicylate should be used only when medication cannot be taken by mouth.

Large amounts of salicylate may lead to serious toxic reactions. Pustular acne may be troublesome. Ten to twelve grams of salicylate daily for one week may produce a skin eruption closely resembling Bromidism. Stopping the drug or giving smaller doses eliminates the reaction. The first sign of serious trouble is hyperpnea or hyperventilation, resembling Kussmaul breathing. It may easily be mistaken for the dyspnea of cardiac failure. Tetany occurs if the hyperventilation is severe. They hyperpnea gradually increases in severity and if the drug is continued a maniacal delirium appears which is followed

by coma. The clinical appearance is suggestive of a diabetic acidosis. However, the chemical changes consist of a respiratory alkalosis with resultant water retention and diminished renal function.¹¹ The serum CO₂ content diminishes, the serum chlorides increase the serum PH rises. It is imperative when hyperpnea appears to either stop or reduce the amount of the salicylate or give soda bicarbonate. The bicarbonate is effective in this alkalosis because it increases renal excretion of the drug and lowers the blood salicylate level. The dosage of soda bicarbonate, 10-15 grains every 4 hours, is not enough to increase the alkalinity of the blood. It is important to recognize these toxic symptoms early. In a patient in cardiac failure or incipient failure an alkalosis may seriously jeopardize the patient's condition. In young adults 20-25 grains of sodium salicylate, every four hours, six times daily is sufficient to maintain blood levels of 35-50 mgm./100 cc. No soda bicarbonate is given with this dose and toxic reaction is rare. In children smaller doses must be used.

Moderate hypoprothrombinemia occurs with these large doses of salicylate.¹² However, it is not of major clinical significance. There were no hemorrhagic manifestations in our cases except for occasional mild epistaxis, a frequent finding in rheumatic fever. In no instance was it necessary to use a nasal pack to control bleeding. The prothrombin time does not exceed 21 seconds (normal 14 seconds) with plasma salicylate levels of 60 mgm./100 cc. or less. A salicylate level of 35-45 mgm./100 cc. is as high as is necessary therapeutically. Quick has pointed out that prothrombin values of 25 seconds or less are safe and without danger of hemorrhage. Recently it was recommended that vitamin K be used with salicylate to prevent this hypoprothrombinemia. It is apparent that the use of vitamin K is not necessary when giving these large doses and certainly not in the smaller doses normally used in clinical medicine.

The sulfonamide drugs offer no help whatever in the treatment of acute rheumatic fever and may actually be harmful. The patient frequently becomes more toxic and more joints become involved while receiving sulfonamide therapy. Penicillin also is of no benefit. One million units of penicillin given over a five day period produced no improvement in patients

with acute rheumatic fever, and some actually showed progression of symptoms during this period.¹³ This experience is born out by others. Chemotherapeutic drugs are not indicated in the treatment of acute rheumatic fever.

Heart failure in acute rheumatic fever is treated like heart failure due to other causes. Digitalis is not contraindicated. It should be given with care so that adequate digitalization is obtained but toxic symptoms do not appear. Cardiac arrhythmias were not common in our group. They may be only temporary. Auricular fibrillation may disappear spontaneously or quinine treatment may be necessary. The use of diuretics is indicated when fluid retention occurs. In over two hundred patients there was only one cardiac failure. He failed to respond to treatment. Post mortem examination showed acute pericarditis with complete obliteration of the pericardial cavity.

There has been considerable speculation on the effect of transfer of these patients to a warm climate. Many soldier patients were transferred to Florida or Texas. While complete clinical data are not now available it is known that some patients continued to show elevated sedimentation rates for weeks in the South. Several men had recurrences of rheumatic fever shortly after returning to the Middlewest. Coburn's experience was similar in sending patients from New York to Puerto Rico. The incidence of streptococcal disease and rheumatic fever is less in the South but a short residence there does not protect against recurrences on returning to a high incidence area. It would appear that rheumatic fever patients should either move permanently to a low incidence area or remain in one during the period when streptococcal diseases are prevalent in their home state.

The prevention of rheumatic recurrences is one of the most important aspects of the whole rheumatic fever problem. Various investigators have reported good results with the use of sulfonamide drugs in the prevention of recurrences. It is the aim of this method to prevent hemolytic streptococcal infection and hence rheumatic fever. One gram of sulfadiazine daily will diminish the incidence of streptococcal respiratory diseases.¹⁴ Similar small daily doses have been found effective in preventing recurrences in rheu-

matic fever patients. Thomas¹⁵ believes that such prophylaxis should be given to all children and young adults who have had rheumatic fever. She advises that the patient continue the drug for five years, the period when recurrences are most apt to occur. In general and with careful observation it is a safe procedure. It is important when the patients receive the drug over many months to check the blood at regular intervals for the development of anemia or leukeopenia. Patients with rheumatic heart disease should receive sulfonamide prophylaxis if they live in an area where streptococcal infections are frequent. For those patients with a history of one attack and no cardiac damage it is difficult to be dogmatic, but treatment for several years after the attack is probably indicated. If the patient contracts a sulfonamide resistant streptococcus then the prophylaxis offers no protection. Strains were found on army posts that were considered highly resistant by laboratory tests. If these strains become predominant then some other antibiotic will have to be used. At the present time one gram of sulfadiazine, or sulfamerazine in somewhat smaller dosage, are the drugs of choice. Treatment should either be continuous throughout the year or limited to the months when hemolytic streptococci are prevalent. Careful and frequent observation to prevent toxic reaction is necessary.

Sulfonamide and other antibiotics offer no protection once the streptococcal infection (Phase I) is established. Scarlet fever patients treated with sulfadiazine may develop rheumatic fever. Forty-four of our patients received sulfonamide, sulfadiazine or sulfathiazole, during Phase I and still developed definite rheumatic fever.

Coburn¹⁶ and several English workers have used four to six grams of sodium salicylate daily for 4-6 weeks after the onset of the Phase I infection. They report encouraging results in the prevention of recurrences of rheumatic fever. We used this method on 45 men, starting the salicylate on admission to the hospital with a hemolytic streptococcal infection and continuing for four weeks. The expected incidence from control studies was one case, and one severe case occurred in a man who took the drug. Statistically this is not conclusive but certainly it suggests

that the procedure is of questional benefit. Further work should be done on this aspect of the problem.

CONCLUSIONS

Patients with acute rheumatic fever should be carefully protected from all respiratory infections particularly those known to be caused by hemolytic streptococci.

Salicylate is the drug of choice to relieve symptoms and reduce fever. The use of large doses is recommended during the first few days or weeks of the disease but continued administration of large doses of salicylate does not shorten the period of rheumatic inflammation; and does not prevent polycyclic rheumatic fever or valvular heart disease.

If large amounts of salicylate are given the signs of toxicity must be recognized early and the dose reduced to prevent progression of the symptoms. Hyperventilation is the first sign of a serious toxic reaction.

So long as there is evidence of active rheumatic inflammation bed rest is the most important and most reliable method of treatment. It is important to emphasize that there is still no chemotherapeutic regime which will obviate the need for prolonged reduction of physical activity as the most important factor in the treatment of acute rheumatic fever.

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ACUTE CRYPTOGENIC CYANOSIS IN EARLY INFANCY

A clinical report of a unique syndrome of infectious (?) origin.

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DECATUR

The bizarre picture of severe cyanosis developing acutely in a vigorous, apparently healthy infant, with no obvious cause and no antecedent physical defects, poses a problem of diagnosis and classification which is not clarified by current pediatric textbooks or literature. The present report concerns seven instances of such an illness, including three relapses, which have been observed in four patients within the last four years.

The type and course of this cyanotic disease probably can be illustrated best by giving a composite description of these patients. The positive pertinent findings actually observed in the several patients are summarized in the accompanying table. Subsequently significant features of the disease are discussed topically in their relationship to the common symptom complex which identifies the group.

Typically, at the age of about one month, a perfectly healthy, well developed, well nourished infant, whose birth, feedings, and past history have been uneventful, is found to be cyanosed. In the absence of any known cause, and independent of any associated gastrointestinal symptoms, cold, fever, or obvious infection, this cyanosis, which may be brief and intermittent at first, becomes progressively and rapidly more severe, until finally a fixed state of pallor and cyanosis prevails. Without treatment, there may develop subsequently signs of serious circulatory failure. More commonly, the infant remains remarkably vigorous, with a healthy cry and un-

bated appetite, so that the contrast of marked cyanosis in an otherwise alert, active baby offers a most unusual picture. In view of the cyanosis, changes in the type and rate of respiration are minimal. The pulse rate, however, is uniformly rapid, — 140 to 160, of regular rhythm and satisfactory quality. The heart findings may be entirely normal, and all abnormalities noted have been of a transitory nature. The lungs, as well as the upper respiratory tract, are perfectly normal. On abdominal palpation the only other striking abnormality discovered is a noticeably enlarged, smooth, firm spleen. The liver is normal in size. There is neither local nor generalized lymphadenopathy. In spite of the apparent absence of infection, rectal temperatures show a constant low grade fluctuation of from one to two degrees. The white blood count is moderately elevated, and for the age of the patient, a definite increase of P.M.N. neutrophils is noted. The red blood count and hemoglobin determination give normal average values for the age period. With the administration of oxygen these patients show some immediate relief as regards restlessness and irritability but only within a period of from one to three days, however, does the color gradually return to normal. In addition to oxygen, both penicillin and sulfonamides appear to be therapeutically helpful, although the delayed response and early relapse under average dosage clearly contradicts any specific curative effect of these drugs. Recovery occurs uniformly within a period of from one to three weeks during which time the infant eats well and gains rapidly in weight. In convalescence the cyanosis disappears first, usually lasting from one to three days, the splenic enlargement disappears next, although a curious day to day fluctuation in size may occur, and finally the tachycardia, having persisted as a solitary sign of disease, is replaced by a normal rate. During the period of persistent tachycardia there apparently remains the potential danger of relapse and recurrence of the initial illness. Following recovery all patients have remained healthy and developed normally.

The Past History of all patients in the group is uniformly negative. All were delivered normally at term and the early neonatal course was uneventful. All babies were artificially fed with adequate, balanced formulae and supplementary

vitamins. Growth, development, and general health were never in question until the onset of acute illness. None had been exposed to any known infections or contagious diseases, and there were no changes nor abnormalities in environmental conditions. All patients were admitted from different small communities near the city of hospitalization. The cases occurred in the years of 1942, '44, '45 and '46, ruling out any epidemic trend. Three of the four babies were seen during the winter and spring months.

The Age Period involved in initial attacks varied from the 22nd to the 46th day of life, which is significant in that all had passed the period of varied syndromes of cyanosis associated with birth and early neonatal life.¹ At the same time this age of infancy is one of relative susceptibility and lack of good immune response to infectious diseases. The exclusive limitation of this syndrome to this particular age period would be presumptive reason for suspecting an infectious process.

The onset of illness was invariably acute. All patients were from homes of intelligent, attentive parents. From the critical status of the first patient it must be assumed that the baby had been ill much longer than the stated twenty-four hours, but, in the absence of anorexia, fever, cold, gastro-intestinal changes or untoward behavior, the parent's complaint of pallor and cyanosis limited the history definitely to twenty-four hours. Where intermittent spells of cyanosis were noted as an initial symptoms relatively rapid progression of the cyanosis usually led to hospitalization within two or three days. Other than minor variation in activity, irritability, or appetite, change in color was the only noteworthy feature and invariably the chief complaint.

Physical examination of all babies on admission gave the anomalous picture of a severely cyanosed, obviously ill infant with practically no additional abnormalities to satisfactorily explain the disease. Respirations varied from slow to moderately increased and were never labored nor suggestive of pulmonary involvement. As a rule the babies were restless and hyperaesthetic, generally crying vigorously when disturbed. Without exception fluids, and feedings when permitted, were taken very well by bottle and the condition of the skin and tissues never indicated any noteworthy loss of weight nor body fluids.

Patient Birth Weight	Male T.E.S. 7-6	Female J. A. 7-8	Male R.K. 6-3	— 6-3	Male S.D. 7-14
Admission	April 1942 35 days "Ht. disease," pallor, cyanosis 1 day	January 1944 46 days 9-3 Increasingly severe blue spells 5 days	July 1935 22 days 6-7 Irreg. cyanosis 3 days Anorexia.	August 1935 31 days 7-5 Cyanosis 1 day. Irritable, listless.	August 1935 55 days 8-6 Cyanotic spells Listless, loose stools.
P.E.	98-4 — rapid Ashy pale cyanosis, listless, slow resp., acutely ill. Enlarged. Loud systolic murmur. 3 f.b.	98-150 Marked cyanosis. Restless, vigorous cry. Moderately ill. Neg. Neg.	99.4 — rapid Extreme cyanosis. Iner. resp. rate. Critically ill. Widely transmitted systolic murmur. 1-2 f.b.	98 — rapid Slaty black pallor. Restless. Vigorous cry. Neg. 1-f.b.	99-150 Black pallor. Irritable, restless Vigorous crying. Weak heart sounds. 1-f.b.
Therapy	Oxygen (Cyanosis) Sulfadiazine (Gm) Penicillin Adrenal Cortex Parent's serum	1 day 2-7 — — —	2 days 1-3 120,000 — —	1-2 days 2-6 20,000 30 c.c. 45 cc.	3 days 4-6 520,000 — —
Progress	99-8 Maximum temp. 150-160 Same Pule (discharge) Recurr. Cyanosis Splenomegaly Cardiovascular	101 150 — 4th day — —	99.4 Very rapid 136 6th day Irreg. 5-6 days Heart normal 3rd day	100 145-160 150 15th-18th days Irreg. 19 days Circulatory collapse shortly after admission Critically ill 18-20 hrs. 19 ounces	100.4 140-160 124 — Irreg. 2 wks & 24th day Systolic murmur 8-13 day Neg.
Gain in hospital	8 ounces	15 ounces	11 ounces	17 ounces	23 ounces
Days in Hospital	5	8	7	11	27
Laboratory	X-ray chest H.B. (range) RBC (range) WBC (range) PMN (range) Eos. (max.) Blood Culture	Neg. 82-76 4-3-5 13-4-6 60-36 2 —	Neg. 88 4-88 19-5-16 62-36 — — —	Neg. 79 4-1 38-8-2-13 45-15-41 10 "Neg" at 2 days	Neg. 76-67 3-51-3-48 12-18-30 45-60 10 B. Pyocyanous
Final Record	Normal at 2½ yrs.	Normal at 2½ yrs.	—	Normal at 10½ months	Normal at discharge (2 wks.)

Although the babies were usually pale they did not appear especially toxic. None seemed feverish to touch, although the admission rectal temperature was occasionally above normal. As a rule detailed examination of all infants revealed only two additional types of abnormalities. One was splenomegaly, the other an invariable tachycardia. In two infants there were, on admission severe circulatory changes presumptively etiologic on initial examination, but subsequently proved to be of secondary nature.

The *cyanosis* of all patients at the time of admission was constant, generalized, and ordinarily severe. Crying and exertion occasionally intensified the cyanosis, at other times no change in color was evident. The administration of oxygen had little immediate effect on the degree of cyanosis. Over a period of 24 to 48 hours, however, there was a definitely beneficial response and all infants were quieter and more comfortable after the gas was started. The rate of flow of oxygen likewise did not affect the infants' color. Following apparent recovery curious brief recurrences of cyanosis during hospitalization were noted on four occasions in two infants. These attacks were transient, independent of additional clinical changes, and never necessitated return to oxygen. Among the group there were in all three re-admissions with two infants for severe relapses of the cyanotic state occurring shortly after discharge from the hospital.

The *tachycardia* was a constant and curiously persistent feature in all patients. During the acute early stages of cyanosis and low grade fever a pulse rate of 140 and 160 did not seem so unusual but as this same tachycardia continued days later when the infant appeared improved, the explanation of its presence was less evident. The only associated abnormality in these later stages was the frequent presence of an enlarged spleen, fluctuating markedly in size from day to day, independent of the generally satisfactory appearance and progress of the baby. As a rule however the tachycardia persisted for days after the spleen was no longer palpable.

Circulatory involvement. The myocardial failure present in the first patient apparently resulted from the lack of oxygenation of the blood since the cardiac enlargement and loud blowing systolic murmur present on admission disappeared completely within two or three days.

The third patient, on admission, likewise showed a loud systolic murmur heard front and back which disappeared quite early. The circulatory failure seen in the relapse of this same patient was apparently not of cardiac origin since the heart was not enlarged and there were no murmurs. The stupor, cold extremities, mottled skin, slow respirations, and extreme pallor and cyanosis, in spite of adequate oxygen, suggested a general circulatory collapse and death seemed imminent. Apparently perenteral adrenal cortical extract gradually counteracted this state since administration of 3 cc. every three hours for a period of approximately twenty-four hours resulted in a slow, but complete recovery from this state of apparent peripheral vascular shock.

Splenomegaly, next to cyanosis, was a signal feature of the disease since it was absent in only one patient. The persistence of this symptom with the associated leucocytosis seems inexplicable except as a sign of infection. There was never hepatic enlargement and no observed circulatory changes suggesting a secondary stasis or engorgement of this organ. Even on an infectious basis however it is difficult to explain the frequent day by day fluctuation in size, occurring independently of the general condition of the patient, and continued into the stage when recovery was obviously taking place. A curious instance of this type occurred in the last patient. On the twenty-fifth hospital day, when the patient was being held for observation, and several days after the spleen had disappeared, there was an abrupt return of the splenomegaly for a period of about twenty-four hours, accompanied by a rise in temperature to 100.4. Slight pallor was noted at the time but there was no cyanosis. Fever had previously been absent for many days although the tachycardia was still present. All medication had been discontinued twelve days previously and none was repeated at this time. The course subsequent to this one day however was uneventful. This episode, in keeping with the general behavior of all patients, suggests a gradually subsiding, but intermittent, sepsis, only moderately well controlled by all therapeutic procedures used with the patients.

Therapy for these infants has been entirely empirical. As previously noted, the administration of oxygen never resulted in the prompt decisive change of color which is ordinarily seen

in patients suffering from cardio-respiratory diseases. On the other hand the fact that cyanosis disappeared completely and relatively early in all patients showed that oxygen must be of great value, especially if its therapeutic effect is evaluated in respect to penicillin and sulfonamides, the only other medications used uniformly in these patients. Sulfonamides were started with the first patient under circumstances which appeared to offer slight hope of benefit. In view of the very acute onset of illness in this patient, and because of the splenomegaly, it was felt that in spite of the absence of fever some infectious process might underlie the cyanosis. The unexpectedly prompt response and early recovery gave the impression that sulfadiazine had been curative in this instance. Unfortunately, in subsequent patients, although both sulfadiazine and penicillin were used, recovery was more delayed and the specific efficacy of these drugs became more doubtful. Any action they exerted was certainly only inhibitory for both the third and fourth patient suffered relapses early after discontinuing presumably adequate dosages of these drugs. Possibly the dosages used were inadequate, or the choice of sulfonamides faulty,² because the clinical impression persists that either or both of these drugs were helpful. In view of the partial or uncertain effect of these antibacterial agents the relatively brief period necessitating oxygen seems to show that the gas must be of significant benefit in spite of the relatively slow initial response.

Pathogenesis. The primary problem presented by this group of patients involves an explanation of the cyanotic state. The mode of onset and course of cyanosis, especially as regards the effect of oxygen administration, clearly indicates the presence of altered hemoglobin, such as methemoglobin or sulfahemoglobin, as the basic disturbance in this illness. Evidence of this is furnished by the case record of a similar illness in a patient reported by Schwartz and Rector.³ This infant first developed cyanosis at the age of one week. The cyanosis was temporarily intermittent but severe at the time of admission to the hospital one week later. The past history, present illness, and physical examination revealed no additional abnormalities. The temperature was normal and there was no

anemia although the white blood count was 30,000 with 50% P.M.N. Oxygen administration as in the case of the present group resulted in no immediate change in the degree of cyanosis. Subsequently blood spectrum examinations demonstrated methemoglobinemia calculated at 50% of the available hemoglobin. Prompt relief of cyanosis followed the use of methylothionine chloride U.S.P. (methylene blue) which is known to effectively reduce methemoglobin to hemoglobin. No cause for this cyanosis was discovered, and after a ten day observation period the patient was discharged. His subsequent course at home was uneventful and he was reported healthy and normal at the age of eight months. Unfortunately blood spectrum studies were not available for the present group of cases. The effect of methylene blue likewise was not demonstrated in this group chiefly because they were initially considered to be cases of infection and therapy directed toward this end apparently led to relatively early disappearance of cyanosis in all patients. The routine followed with the present group at least has the value of showing the typical course of these patients without rapid elimination of the cyanosis. It is possible that recovery would have followed more rapidly and relapses would have been avoided if the general health and resistance of the patients had been fortified by earlier restoration of a normal hemoglobin state. In retrospect the state of severe circulatory failure observed in the third patient certainly deserved the benefit of methylene blue therapy.

Mere identification of altered hemoglobin as the cause of cyanosis is not in itself sufficient explanation for the illness of these patients, as Schwartz and Rector noted. Recently however Comly⁴ has reported the discovery of a plausible specific factor in the production of methemoglobinemia in early infancy. He found that contaminated, high nitrate content well water which was used in the preparation of artificial feedings in rural Iowa was associated with a cyanotic illness in early infancy. Methemoglobin was demonstrated by blood spectrum examination and methylene blue intravenously relieved this cyanosis. The age period involved and course of illness in his patients was quite similar to the present group. Contrary to this group, his cases were afebrile, had normal white blood

and differential counts, and no splenomegaly. Moreover Comly's patients showed preceding and associated gastrointestinal disturbances such as vomiting, diarrhea and refusal of feedings. In explanation of the cyanosis Comly suggested that the ingested excessive nitrates were reduced to nitrites by intestinal bacterial activity with resultant nitrite absorption and secondary conversion of hemoglobin to methemoglobin. He mentions in this regard a reported case of methemoglobinemia in an infant following administration of massive doses of bismuth subnitrite. In addition he refers to a report of methemoglobinemia in two patients of a large group given ammonium nitrate. The transformation into nitrates and resultant cyanosis in these particular patients was attributed to some abnormal metabolic process. Both patients were reported to have an intestinal process. Comly suggests that adults, using the same water as the infants, probably were unaffected because of various differences in the physiological processes of infancy as compared to adult life. On discontinuing the use of contaminated well water all of his cases remained well. In a final notation he reports the case of an infant seen later who was intensely cyanotic but in no particular distress so that methylene blue therapy was withheld. Twenty-four hours after the well water feedings were discontinued the baby's color was normal. Schwartz and Rector also state that "it is a common observation that the color of patients with moderate degrees of cyanosis due to methemoglobin will become normal within one to three days after the causative agent has been withdrawn." In view of these statements the very late relapses of cyanosis during hospitalization where formulae were made with water of acceptable standards (2.4 parts per million of nitrate nitrogen as reported by the Decatur Sanitary District) suggest a different etiology in the patients of the present group in spite of certain similarities with Comly's cases. This delay and sporadic recurrence of cyanosis in the absence of excessive nitrate ingestion indicates that additional factors are necessary to explain the presumptive altered hemoglobin status of the present group.

The impression gained from following these particular cases is that the disease probably resulted from some infectious process peculiar to

early infancy. Indicative of this was the very acute onset in a susceptible age period, the absence of any apparent environmental factors, the lack of any systemic disease or organic abnormality, low grade fever, and the indolent, but possibly beneficial response to the use of antibacterial agents. In septicemias of 39 newborn infants, Dunham⁵ noted 19 cases with splenomegaly, 9 without localizing infection, 6 with absence of fever. The very low grade fever which is uniformly present is quite misleading from the viewpoint of infection as regards the initial diagnosis.* The constancy of this fever however points toward infection but only for a specific organism of low virulence and presumably one of infrequent occurrence. Blood cultures were not seriously considered in the first patient and were missed in the second case because of lack of time and facilities. In the third patient the culture obtained was unfortunately discarded at the end of forty-eight hours as "negative." In the relapse of the fourth patient, however, blood cultures taken before therapy was started showed, on the fifth day of incubation, a pure growth of *B. pyocyaneus*. Additional studies with this organism were planned but the strain was unfortunately lost in sub-culture. Because *B. pyocyaneus* is an organism of low virulence, but of proven pathogenicity in infancy,⁶ it was felt that this positive culture might be very significant. The relationship or possible pathological activity of the bacterium in this disease is far from clear at the present time. Available reports of *B. pyocyaneus* infections have not mentioned cyanosis as a sign of illness. Whether *B. pyocyaneus* infections may elicit a type of so-called "enterogenous cyanosis" which has been attributed to bacterial infection and absorption of toxic products from the gastro-intestinal tract⁷ remains for future investigations to decide. Theoretically, the combination of bacterial infection of a particular type with a high nitrate intake might very readily produce cyanosis. At the same time it may be possible that specific infections

*In regard to fever it should be mentioned here that probably one of the most prevalent fallacies in current medical lore is the opinion, and published statements, that rectal temperatures are normal at 99.6. Clinical observation of healthy infants and children under normal conditions will readily verify the fact that 98.6 is the normal rectal temperature. Elevations above this level are ordinarily explainable on a causal basis.

independent of the nitrate intake may alter the metabolic processes in early infancy resulting in the production of by-products capable of producing oxidized hemoglobin in such patients as the present group and Schwartz and Rector's case. As regards the problem of relative nitrate intake independent of infection it would seem feasible to check this experimentally in infants of a comparable age period. Considering our current knowledge in regard to these problems the present group of patients were deemed worthy of report in the hopes that as additional cases were recognized more adequate studies might clarify the pathology of this unusual disease, or symptom complex.

SUMMARY

A group of cases of acute, severe, but benign, disassociated cyanosis in young infants is reported. Present observations suggest that this syndrome of untoward cyanosis, which undoubtedly results from reduced hemoglobin, may represent an unrecognized, unclassified type of acute infectious process in early life. The possibility of a specific relationship to B. pyocyaneous septicemia in early life, is considered.

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Until people as a whole are educated to the point where they will cease to wait for pain, weakness, or fear to drive them to their physicians, preventive medicine will continue to be the backward child of medical practice. Edward J. Stieglitz, M.D., A Future for Preventive Medicine, The Commonwealth Fund, 1945.

ENDOCRINOLOGY IN THE MILITARY SERVICE

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In the present national emergency of mobilization and warfare, many men with overt as well as latent psychosomatic tendencies are being mustered into the military service. Through endocrinopathies form a small part of the total morbid processes that are likely to be encountered, a proficiency in their detection is necessary in order properly to adjudicate the problems of diagnosis, reclassification and disposition. From an economic point of view, evaluation of these factors, may aid in conserving the desirable assets of an individual, so that he can serve his country in some needed capacity.

Since the endocrine glands are in intimate relationship with both the vegetative and cerebrospinal nervous system, in a manner not entirely understood at present, it is realized that emotional tensions inherent in the military environment, (i.e. lack of adaptation of ideals to current military life) may in turn act to obscure or unduly emphasize the operating influences of the endocrinopathy. This conflict giving rise to subjective symptoms may be in existence long enough to affect so-called functional changes in endocrine glands. Attention is drawn to these possibilities since an uncomplicated endocrine syndrome in men of military age, does not exist without concomitant psychobiologic potentialities. An understanding of these factors is necessary in order to interpret and evaluate any given endocrine problem.

The endocrine dysfunctions that are likely to be encountered in individuals of the military age groups run the gamut of endocrinopathies. To illustrate this point, several case histories have been selected as demonstrating both uniglandular and pluriglandular syndromes. The schemata of presentation of the data includes an autobiographical approach to pertinent subjective history, a description of the clinical manifestations of the endocrine stigmata, the application of the Kent EGY Psychometric test to establish the gross mental age of the individual with endocrine complaints, and an evaluation of the available

The source material for this paper was gathered during the author's tenure of service at the Station Hospital, Camp Livingston, Louisiana.

and essential laboratory work to establish the dynamics of the disease process from a diagnostic standpoint (skull x-ray, B.M.R., blood sugar tolerance curve and blood cholesterol). In this undertaking it was realized that with so many variables, it is often difficult to distinguish as to what constitutes physiologic and psychologic normality. However, an attempt was made to correlate all factors in an endeavor to present a composite picture of the glandular imbalance with the effect of the environmental change upon the patient. Individual disposition was recommended after the above criteria were evaluated.

Case 1.

A 23 year old white soldier, private, 3 months service, married, education consisting of 7 grades terminating at the age of 16 years, and a truck driver prior to his induction into service, was admitted to the Station Hospital complaining of headache, dizziness and a backache. The family and developmental history, and habits as related, were all essentially normal. His sex history was non-informative with the exception that in three years of married life, sexual congress has been infrequent and, in fact, repulsive to him. This, despite the fact that he expresses a love for his wife. He has had headaches and to and fro movements of his eyes as long as he can remember. These headaches are frontal in type and aggravated by those factors which increase intra-cranial pressure. This complaint has been aggravated since an automobile accident in 1942, in which he was rendered unconscious for four hours. His vision has been poor for years, and at times has a tendency to blur. In civilian life he frequently changed his position because of nervousness and a desire to get a change of scenery. In the performance of his military duties his symptoms have become aggravated.

Physical Examination and Laboratory Findings: White soldier, 5'7", weight 157 lbs., pulse 72 and regular, B.P. 118/78. Oscillation was present at rest and violent on lateral movements. Eye grounds were normal. There was a constriction of the entire visual field, greater in the temporal and upper segments. A marked protusion of the lower jaw with wide spacing of the teeth was present. The chest was wide anteriorly and posteriorly. The upper extremities in relation to the torso were longer than normal, and the hands appeared rather pudgy. No abnormalities were observed about the feet; however, he stated that he changed shoe sizes several times in the past two years. The B.M.R. was -9% and the glucose tolerance curve was within limits of normal. The x-ray of the skull showed small frontal sinuses with apparent absence of the right, no abnormalities were otherwise noted. X-ray of both hands showed absence of definite bone or joint changes. The Kent EGY psychometric test scored his mental age at the ten year level.

Diagnosis. 1. Pituitary dysfunction (hyperpituitarism, acromegaly), moderate, progressive, manifested by

frontal headaches, weakness, constriction of the temporal fields of vision, prognathism, wider spacing of the teeth, disproportion of upper extremities with the torso, pudgy hands, increase in foot size, decrease in libido sexualis. 2. Mystagmus, congenital, bilateral, manifested by the oscillatory movements of the eyes at rest, and increased by movement. 3. Mental deficiency, borderline intelligence, mental age of 10 years, Kent EGY psychometric score.

This condition existed prior to induction.

Recommendation. In view of the fact that this condition may be progressive, reclassification or further training would be of no benefit in helping this soldier adjust to the Service, therefore, a recommendation for separation from the Service under the provisions of Section II, AR 615-361 was made.

Case 2.

A 35 year old white soldier, private, 8 months service, single, education consisting of 8 grades terminating at the age of 18 years, and a farmer prior to his induction into the Service, was admitted to the Station Hospital complaining of weakness, nervousness, and pains in the back of six weeks duration. The family and developmental history as related were all essentially negative. The sex history revealed that penile erection was possible only with prolonged effort. At no time did he experience a seminal emission and he lacked an aggressive sex drive. The patient stated that the absence of sex life was the bane of his existence. He was ashamed to undress himself before his fellow soldiers because of his sensitiveness to their jibes relative to his "manhood". He attained a maximum weight of 158 lbs., 3 years prior to his induction and since his service his weight had fallen to 138 lbs. He accounted for this weight loss as being due to the loss of appetite and sleep.

Physical Examination and Laboratory Findings. White soldier of the asthenic body type, 6'1½", weight 138 lbs. pulse 78 and regular, B. P. 125/80, sallow skin, and poor tissue turgor. There was an absence of hair from the face, axilla, torso, and extremities. The pubic hair distribution was sparse. There was marked hypogonadism, the testes were small but present in the scrotum. The B.M.R. was -24%, the blood cholesterol was 204 mgm/100 cc, the x-ray of the skull was normal, and the blood sugar tolerance curve showed some flattening.

The Kent psychometric test scored his mental age at the 13 year level.

Diagnosis. Pituitary dysfunction (hypopituitarism) severe, manifested by early proportional longitudinal growth, and associated with secondary endocrine imbalance in gonads and testes. This was characterized by marked underdevelopment of the genitals, lack of directional sex drive, absence of male secondary characteristics, dry sallow skin, poor tissue turgor, B.M.R. -24%, blood cholesterol of 204, mgm per 100 cc, and a somewhat flattened blood sugar tolerance curve.

Recommendation. On the basis of the physical disability and the psychic trauma resulting therefrom, it

was recommended that this soldier be separated from the Service under the provisions of Section II, AR 615-361. Reclassification or further special training would be of no avail in adjusting this soldier to the military service.

Case 3.

A 28 year old white soldier, Sergeant, 20 months service, married, education consisting of 1 year at a University, and a salesman prior to induction into the Service, was admitted to the Station Hospital complaining of left chest pain, exertional dyspnoea, and overweight. The family and developmental history as related, were essentially normal, with the exception that he was underweight until a tonsillectomy was done at the age of 11 years. Following this surgical procedure he started to gain weight rapidly. His maximum weight in high school was 190 lbs. He considered his appetite and eating habits as above the average requirements. He related a long history of alcoholic excesses, with an arrest for the same in 1937. His sex history was non-contributory, with the exception that he was married for a period of 10 months and though no contraceptive devices were used, his wife was unable to become pregnant. In the past five months he gained 50 lbs. He accounted for this excessive weight gain because of a gluttonous appetite, and excessive alcoholic indulgence.

Physical Examination and Laboratory Findings. White soldier, 5'8", weight 233 lbs., pulse 74 and regular, B.P. 128/90. There was a marked pectoral obesity (breast enlargement), abdominal panniculus, genu valgus, and a hypoplasia of the gonads. A soft enlargement of the thyroid was palpated, and dermatographia was present at the base of the neck. Chest x-rays showed a deviation of the trachea to the right presumably due to thyroid enlargement. The x-ray of the skull was normal, B.M.R. was -10%, blood cholesterol 191 mgm. and there was a diminished tolerance to glucose as shown by the glucose tolerance test.

The Kent EGY psychometric test scored his mental age at the 14 year level.

Diagnosis. Pituitary dysfunction (low grade functional pituitary insufficiency,) moderate, present at puberty with secondary involvement of the thyroid gland, gonads and pancreas, and a history of constitutional dietary and drinking indiscretions. This was further supported by the soft enlargement of the thyroid, B.M.R. of -10% blood cholesterol of 191 mgm., and a decreased tolerance to glucose as evidenced by the blood sugar tolerance curve.

This condition existed prior to induction.

Recommendation. This soldier was transferred to a General Hospital for further study, observation and disposition.

Case 4.

A 20 year old white soldier, private, 2 months service, single, a high school graduate, and a wood carver prior to induction into the service, was admitted to the Station Hospital because of a nasopharyngitis. His family history was non-contributory, with the exception that his father spoke in a falsetto voice. Develop-

mental history and habits as related by the patient were irrelevant. His sex history revealed two nocturnal emissions, and the idea of heterosexual congress was repugnant to him.

Physical Examination and Laboratory Findings. White soldier of the anthenia type, 5'7", weight 135 lbs., pulse 80 and regular, B.P. 145/85. There was an absence of hair from the bearded region of the face and female configuration of pubic hair. The external genitalia were of normal size, and the testes were present in the scrotum. He had a male pre-puberty voice range. Mitral regurgitation (no known previous history of rheumatic fever) and defective hearing in the left ear (cause undetermined) were also present. The x-ray of the skull showed a complete bridging between the anterior and posterior clinoid tables, the B.M.R. and -1% and other laboratory data were non-contributory.

Diagnosis. 1. Pituitary dysfunction (hypopituitarism) with associated hypogonadism, manifested by lack of development of secondary male characteristics, characterized by pre-puberty voice range, female distribution of hair, and absence of directional libido sexualis.

2. Valvular heart disease, mitral insufficiency.

3. Defective hearing, left, cause undetermined, hearing left 10/20, and right 20/20.

This condition existed prior to induction.

Recommendation. The presence of the aforementioned endocrine stigmata did not warrant reclassification to non-combat, non-tactical duties, however, the presence of mitral regurgitation and defective hearing in the left ear merited consideration.

Case 5.

A 39 year old white soldier, private, 4 months in the Service single, education consisting of 8 grades terminating at the age of 16 years, an unregistered pharmacist prior to induction was admitted to the Station Hospital complaining of backache. His family history was irrelevant. At the age of 13 years he fell a distance of one foot astride a manure spreader, he fainted, and when he regained consciousness, found himself in a hospital. A bilateral orchidectomy was done at this time.

As he grew from puberty, through adolescence to manhood he never experienced a penile erection. He denied masturbation since no auto-erotic pleasure was derived from this act. He never experienced nocturnal emissions, and denied homosexual trends. He dismissed inquiries concerning attempts at heterosexual congress with 'no interest' statement. His habits as related were moderate. In 1937 he was in a train accident in which he sustained an injury to the back and a broken right ankle. Of interest, he stated that he had developed a philosophical attitude toward his disability by trying to lead as normal a masculine existence as possible. His associations were with men, but he never allowed himself to become too intimate with his acquaintances lest they discover his asexuality.

Physical Examination and Laboratory Findings. A white soldier, 5'4", weight 160 lbs., pulse 80 and

regular, B.P. 140/90. The following endocrine stigmata were noted, female configuration of the body (girdle and pectoral region) female distribution of hair, infantile penis and absence of testes from scrotum bilaterally.

Kent EGY psychometric test scored his mental age at the 14 year level.

Diagnosis. Eunuchism (bilateral orchidectomy as a result of trauma) characterized by failure of development of the male secondary sex characteristics, with the onset of contrasexual physical appearance, i.e., female configuration of body, female hair distribution, infantile penis, absence of testes from scrotal sac, and an absence of directional male libido sexualis. The laboratory data was non-contributory.

This condition existed prior to induction.

Recommendation. Because of his disability (Eunuchism) this patient should not be exposed to further psychic trauma. Separation from the Service under the provisions of Section 11, AR 615-361 was recommended.

Case 6.

A 26 year old White soldier, private, 10 months in service, married, education consisted of 7 grades terminating at 14 years, and a coal miner prior to his induction, entered the Station Hospital complaining of headaches, dizziness, nervousness, tachycardia, palpitation, and excessive perspiration. His family and developmental history as well as his habits as related were non-contributory. In civil life he was under the occasional treatment of his family doctor who diagnosed his condition as hypertension, advising him to take things easy. He had no difficulty in adjusting himself, except that new situations were trying to him as he reacted to them in a "nervous and jittery manner". In the Service he found it increasingly difficult to take rapid orders, as he has a tendency to become confused. His sex history is irrelevant with the exception that he has found his sex requirements diminishing.

Physical Examination and Laboratory Findings. White soldier, 5'6", weight 154 lbs., pulse 90 and regular, B.P. 145/70. Head is symmetrical with the eyes widely spaced. There is an increased width of the palpebral fissures, exophthalmos is present as is erythema at the base of the neck with dermatographia. Thyroid is enlarged on palpation, firm and symmetrical. A fine fibrillary tremor of the extended fingers and hyperactive knee jerks are present. The skin is moist and warm. The B.M.R. is +19% and a decreased tolerance to glucose as evidenced by the blood sugar tolerance curve is noted.

Diagnosis. Goitre, adenomatous, toxic (exophthalmos mild) moderate, manifested by palpable enlargement of the thyroid gland, +19 B.M.R., vasomotor instability (flushing of the face, tachycardia, palpitation, dermatographia and excessive perspiration), increased width of palpebral fissures, fibrillary tremor of the extended fingers, high pulse pressure (75mm.),

and diminished tolerance to glucose as evidenced by the blood sugar curve.

This condition existed prior to induction.

Recommendation. Since this patient had been reclassified and found it difficult to adjust to the military requirements, and there was a likelihood of the hyperthyroidism becoming increasingly severe under adverse psychic stress, separation from the service under provisions of Section 11, AR 615-361 was recommended.

Case 7.

A 26 year old colored soldier, Private, 8 months in the Service, single, education consisting of 7 grades terminating at the age of 20 years, and a farmer prior to his induction into the Army, was admitted to the Station Hospital complaining of headache, exertional dyspnoea and swelling of the ankles. His family history as related was irrelevant. Concerning his developmental history he has been overweight since the age of 7 years. He accounted for his poor scholastic record, in that he was not able to concentrate, and that he had few clothes to wear because of his overweight. His habits were moderate, and he drank little or no alcohol, because it made him "crazy in the head". His sex history was irrelevant with the exception that he felt depressed because he lacked sex drive. He attained a maximum weight of 237 lbs. prior to induction despite the fact that he was eating the same quantity of food as other members of his family. He had found it difficult to perform his military duties because of exertional dyspnoea and swelling of the ankles.

Physical Examination and Laboratory Findings. Colored soldier of pyknic type, 5'4", weight 234 lbs., pulse 76 and regular, B.P. 135/80. The following overt endocrine stigmata are noted: slow speech (tongue not enlarged) cretinoid facies, dry skin, mild pectoral and shoulder fat distribution, a marked abdominal panniculus, all firm to the touch. There is a non-pitting edema of the ankles. The thyroid is not palpable. The B.M.R. is -14% blood cholesterol is 199 mgm., increased tolerance to glucose as evidenced by blood sugar tolerance curve, and normal x-ray findings.

The Kent EGY psychometric test scored a mental age of 9 years.

Diagnosis. 1. Hypothyroidism, chronic, moderate, manifested by pygmic stature, cretinoid facies, dry skin, abnormal fat distribution, non-pitting edema of the ankles, lack of sex drive, B.M.R. -14%, and an increased tolerance to glucose, as shown by the glucose tolerance curve. 2. Mental Deficiency, Moron Type, manifested by poor school history, lack of interest, lack of concentration, and a Kent EGY test score of 9 years. The mental status is believed to be secondary to hypothyroidism.

This condition existed prior to induction.

Recommendation. Since the patient has been reclassified with no resultant physical adjustment to the requirements of military service, it was believed that further training would be of no avail. It was rec-

ommended that this patient be separated from the Service under the provisions of Section 11, AR 615-361.

Case 8.

25 year old White soldier, Private, in service 4 months, single, education consisting of 9 grades terminating at the age of 17 years, and a salesman prior to his induction into the Service, was admitted to the Station Hospital complaining of exertional dyspnoea, and swelling of the ankles. His family and developmental history were essentially non contributory. Up to 3 years ago he managed to stay under 200 lbs. Then with a change of dietary standards at his home and with noticeable increase in appetite, his weight started to climb, so that at the time of induction his recorded weight was 285 lbs. He denied excessive use of alcoholic beverages, drank occasionally and only socially. His sex history was irrelevant, with the exception that he had no sex drive, and he feared marriage because of the sex requirements that might be entailed.

Physical Examination and Laboratory Findings. A white soldier of pyknic stature, 5'6", weight 268 lbs., chest circumference 48½", waist 51", pulse 84 and regular, B.P. 125/80. A marked pectoral and girdle obesity were noted. The abdominal panniculus was prominent, the genitalia were smaller than normal, and the testes were present in the scrotal sac. The B.M.R. was -5%, decreased tolerance to glucose was present as evidenced by the blood sugar curve, and skull x-ray findings were normal.

The Kent EGY psychometric test scored a mental age of 12 years.

Diagnosis. 1. Obesity, Exogenous, severe, manifested by a constitutional history dietary indiscretions, a weight of 268 lbs., normal fat distribution, abdominal panniculus, hypoplasia of the genitals, lack of libido sexualis, and decreased tolerance to glucose as evidenced by the blood sugar curve. 2. Mental Deficiency, Inferior Intelligence, Mental Age of 12 years as scored by the Kent EGY psychometric test.

Recommendation. Patient signified his interest and willingness to return to duty. A trial of duty under a prescribed reduction routine, and occasional medical supervision was advised.

DISCUSSION

In contradistinction to the findings of the laboratory investigator who thru controlled procedures induces a disease and observes an uncomplicated symptomatology, an analysis of our case material shows a multiplicity of mental, physical, social and environmental factors. The general symptoms preceding hospital admission and the ultimate recognition of the endocrinopathies present were headache, dizziness, exertional dyspnoea, tachycardia, nervousness, precordial pain, palpitation, weakness, backache, weight loss or gain and swelling of the ankles. Without the presence of an endocrine dysfunction, all these complaints

may well have been referable to the individual soldier's psychic response to the stress of the present emergency. Whether or not the endocrine stigmata, or the conditions of emotional stress inherent in a state of warfare were the factors bringing these patients to the attention of the military physician must, for the lack of more conclusive scientific evidence, rest in the realm of philosophical speculation. A perusal of our case histories shows that endocrine dysfunctions were present prior to induction, yet these individuals were able to canalize their activities in such a manner as to meet their psychologic needs in civilian life. This was not the case in their adjustments to their requirements of the military service either on full or limited duty status.

The scope of this paper does not permit a detailed discussion of the various endocrine syndromes entailed in the case histories. In the psychosomatic approach the variables were chosen from the 'over all picture' which conforms with the established diagnostic criteria of an endocrine dysfunction (organic or functional). The glands of internal secretion do not act in a manner of simple cause and effect. In normal health the harmonious interactions of these secretions produces a smooth equilibrium (homeostasis), whereas the imbalance of the secretions of one gland or groups of glands produces disease entities of the nature described. These facts have been demonstrated and confirmed by laboratory experimentation, pharmacodynamics, clinical observation and necropsy findings. Though the classic text book pictures were lacking in the diagnostic desiderata of these cases, factors such as race, age, chronicity of the disease concomitant with the constitutional psychobiologic potentials possessed by the individual, may have modified or influenced the pathogenesis of the pluriglandular syndrome.

Statistically the endocrine disturbance present 0.3% of the cases sent to the Neuropsychiatric Section at the Station Hospital at Camp Livingston. In itself the number is small; but if it were permissible to multiply by the number of Station General Hospitals throughout the country, the number is no longer insignificant. As yet no definite provisions have been made for the treatment of these diseases entities in the Military Service.

In this struggle for national survival, it is not enough to reclassify, or to separate these soldiers

from the Service, and return them to civilian status perhaps the worse for their experience. Salvage of these men and the utilization of their services in a productive effort should be made. Organo-psychotherapies when used judiciously under established diagnosis or surgical procedures when so indicated, might be of benefit in restoring these individuals to some useful capacity in the total war effort.

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THE ESSENTIALS OF GENIUS

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Since the eighteenth century, scientific explanations have superseded the ancient supernaturalistic concepts of genius. In the scientific sense, genius is not conceived as some mysterious inspiration or divine influx, but as a form of energy working through a highly developed nervous organism in conformity to natural laws.

The phenomenon of genius is explained by some writers as a healthy, normal variation of the human type; and by others, as a pathological mental entity. According to psychoanalysts, genius is a manifestation of unconscious cerebration. On the other hand, Hirsch¹ maintains that genius is primarily a sociological, not a psychological phenomenon in view of the fact that the great men of the world have been influential in shaping the course of history.

Although the term "genius" has been variously defined, no single interpretation is available which satisfactorily meets all the requirements of a universally acceptable definition. Nevertheless, all definitions are in agreement that "superior intellectual power" and "originality," in one form or another, characterize all creative minds.

ETIOLOGY

Incidence. The individual frequency or exact quantitative determination of genius has never

been definitely ascertained. The few investigators who have made an effort in this connection vary considerably in their estimates. Cattell² limited his list of the world's great geniuses to one thousand. Sir Francis Galton³ fixed the number of extraordinary geniuses at approximately four-hundred; whereas Tucker⁴ estimated that, of the well-known men of the world, true genius forms no more than one two-hundreds of 1 per cent.

Heredity. As the result of his work on mental heredity, Galton³ advanced the theory that "great intellectual gifts were directly transmissible from one generation to another in the favored families where they occurred." This theory, however, was nullified by other investigators.

Renda⁵, the Italian scientist, proved that the endowment of unusual ability in the founder of a family tends to disturb and disrupt the organism of his descendants. By applying Pearson's formula, Renda demonstrated that exceptional talent is dissipated in the pedigree with the rapidity of a geometrical progression.

Jones⁶ cites the relationship of genius and family mediocrity in which the series "genius-mediocrity-genius," or "mediocrity-genius-mediocrity" occurred far oftner than the appearance of genius in immediately succeeding generations — an observation which led to the formulation of the law of "alternation of generation" as applied to genius.

To sum up, as far as our present knowledge permits, the evidence, instead of corroborating Galton's theory, lends credibility to the rule that genius does not beget genius.

Environment. The reports of Beard⁷, Nearing⁸ and Jacob⁹ indicate that climatic conditions, in so far as they have a bearing on geographical location, exert a favorable influence on the mentality of great men. Odin¹⁰, who studied the geographical distribution of French genius, found the greatest number of persons of superior intelligence where the urban population is the densest. In proportion to population, the cities produced almost thirteen times as many men of genius as rural regions. Essentially the same findings were reported by Cattell¹¹ who investigated the geographical distribution of famous men of science in the United States.

Social Status. Odin¹⁰, who inquired into the social position of 619 French men of letters,

found ninety-one per cent of these belonging to the rich and middle classes; and nine per cent, to the lower or poor class. These results, which seem to lend support to the conclusion that geniuses are not to be expected in the poorer classes of the community, are in general agreement with those of Ellis¹² and other investigators.

Education. No reliable data is available to indicate the extent to which genius owes its power to formal education. Dryden, the poet, said: "Genius must be born and never can be taught." As a rule, this is true because genius, especially artistic genius, appears at such an early age as to put study or cultivation, as a producing cause, out of serious consideration.

A study of the educational record of world-famous men reveals that a considerable number of them proved to be mediocre pupils or registered total failures at school, college or university. However, this does not necessarily mean that education does not count. To the man of original mind, whose ideas are not subordinated to traditional social beliefs and customs, a sound academic training is an asset. Should the conditions be reversed, the effect of academic influences upon the mind is apt to be crippling.

Diseases. The lives of many famous men were conditioned by disease. We have reason to believe from the reports of Ellis¹², Moorman¹³, Tobey¹⁴ and others that the psychical excitation or fermentative influence of such diseases as gout, tuberculosis and syphilis may be a factor of considerable importance. In any case, however, the fermentative influence of disease on the mentality of genius is merely one of many exciting factors acting on a fundamental predisposition.

Lombroso¹⁵ and Sergi¹⁶ attributed the "inspirations" and "visions" of Mahomet, Luther, Loyola, Julius Caesar, Napoleon, Dante, Moliere and Flaubert to the petit mal attacks or psychic equivalent crises of epilepsy. However, the consensus is that, though the two conditions may coexist, epilepsy never creates genius.

A host of great writers sought inspiration through the medium of drugs, particularly alcohol and opium. In the man of letters, alcohol releases a certain mood in which the verbal expression is facile, rapid, colorful and forceful. On the other hand, the use of opium leads to

strange and fantastic flares of the imagination — a quality clearly impressed across the pages of Poe's works. Nevertheless, in spite of any psychological aid which may be derived from the use of drugs, the fact remains that drug addiction contributes no creative capacity to the man of genius which did not possess before in either a latent or an active state.

THE BRAIN OF GENIUS

There is a popular notion that the heavier the brain, the greater the intellectuality. Although Broca and other investigators have demonstrated that greater brain weights are more frequent among eminent men than ordinary individuals, it has never been conclusively proved that mere weight of brain endows its possessor with superior intelligence.

Spitzka¹⁷ disclosed that genius, anatomically considered, is more dependent on the internal structure of the brain than upon its size and weight. On examining the brains of individuals characterized in life by high intellectuality, he noted a striking development of the corpus callosum. This structure was found to be much larger, broader and deeper in men of great intelligence than in those of average mental ability. Next in point of development was the number and depth of the cerebral convolutions; and lastly, the number of gray cells. Spitzka concluded that it is the increased development of the corpus callosum and its resultant better coordinating power which determines the quality, the fineness and usefulness of the brain.

PSYCHOLOGICAL ASPECTS OF TRUE GENIUS

Men of genius fall readily into one of three psychological categories. One group includes the men of "inspiration" — the poets and artists; another, the intellectual "plodders" — the scientists and philosophers; and lastly, those devoted to practical or administrative affairs — the statesmen, military leaders and captains of industry and commerce.

Glover¹⁸ reports that the majority of our great geniuses, especially artists, were precocious at an extremely early age. The outstanding genius-prodigies as artists were Schubert, Goethe, Tasso, Chatterton, Raphael and Michaelangelo. In science and philosophy, men like Comte, Pascal, Voltaire, Montesquieu and Newton pursued high ideals, developed significant interests, and cre-

ated new expressions of original thought before they had reached maturity.

As a class, the eminent of the world are much superior to the average run of humanity, and this superiority lies in greater mental power. William James¹⁹, discounting the "lopsidedness" theory of genius, asserts that the strength of genius does not consist in the superiority of any one power of the mind, but on the vigor and combination of all its powers. In other, true or classical genius is superb synthesis of mental functions.

The mind of genius is of such kind that it is highly impressionable. According to Riley²⁰, the results of psychological laboratory experiments on sense discrimination lend support to the inference that the genius sees and hears what is imperceptible to the ordinary individual. The impressionable nature of genius is also evidenced by divining facts and anticipating results afterwards proved to be true.

All orders of genius, especially the "plodding" type, are fortified intellectually with marked powers of sustained attention; a strong systematic memory; and a subtle associative process which, according to Professor James, takes the form of an unusual tendency to associate by similarity. The intellectual "plodders" are led in their course by an active and comprehensive imagination by virtue of which all sensations and conceptions are coordinated with each other.

As an organizing intelligence, genius harmonizes all by the higher principles of reason. Reasoning involves the functions of invention and judgment. It is imagination which invents; judgment serves as a mode of control and justification. A writer of much imagination, not tempered by judgment, will produce extravagance and folly; but, where sound judgment is supplemented with an active imagination, productivity is enhanced — the production not only of what is new, but what is congruous, useful and great.

In the effectively productive person, gauged by quality as well as quantity, the rationalizing capacities must be harmonized with emotional attitudes in order to bring them into their most effective operation. The stimulus to activity in the great man takes the form of "divine discontent" — that somewhat naive faith in the efficacy of human effort over and beyond the demands of one's task which finds no relief from intense

productive energy but in creation and ceaseless working.

To successfully accomplish anything, there must exist some force to drive one onward. In the "inspirational" type of genius, the subject appears to be driven by the force of his ideas. The flow of ideas in these cases is facilitated by a release of the inhibitory action of the will. When will steps in, it serves merely to guide the effort, to externalize the product of genius. On the other hand, the "plodding" type of genius appears to be propelled by the force of volition. The prolonged, intense concentration of mind which precedes the final achievement is a striking manifestation of will power.

Thomas Carlyle defined genius as "an infinite or transcendent capacity of taking pains." This interpretation is descriptive of the manner of achievement and suggests that the finished product of the creative mind must have entailed unremitting and indefatigable labor. When his spirit is moved by a creative idea, the genius is indeed capable of exercising the most protracted diligence and patience.

There are also certain extra-intellectual traits which characterize men of great originality. They are frequently accused of arrogance because of their indifference to social customs and practices. In some cases, they assume an arrogant attitude to cover up a feeling of social inferiority due to timidity. These shy individuals naturally turn their energies inward by shutting themselves away in solitude to meditate, to enter the world of imagination and finally give their emotions, ideas and sense of beauty expression in the form of artistic and literary creations.

The kinship of certain aspects of childhood with the character and creative work of genius has been repeatedly emphasized by great philosophers. Schopenhauer²¹ said: "Really every child is to a certain extent a genius and the genius is to a certain extent a child." The genius is rightfully called a "man-child" because he retains a semblance of child-like traits throughout life by virtue of a characteristic spontaneity, simplicity and disinterestedness.

ATYPICAL GENIUS

The term "atypical genius" applies to a class of individuals who, though extraordinarily gifted, fall short in some particular of true genius. In the category of atypical genius be-

long the "mute, inglorious Miltons;" the muddle-heads; the prodigies and idiot savants, as well as criminal and insane types.

"Mute, Inglorious Miltons." In the world, side by side with those who are famous, is a multitude of highly endowed individuals — many more than we know of — who remain unnoticed by their contemporaries, or are extinguished altogether by adverse circumstances before they are able to make their power felt. Whatever powers of genius they may be endowed with remain latent, abortive or inchoate. Gray, the poet, characterized these unfortunate individuals as "mute, inglorious Miltons."

Muddle-heads. The name "muddle-head" is commonly associated with dull-witted persons. However, contrary to general belief, muddle-heads may be exceptionally gifted; they are geniuses spoiled in the making. The chief psychological defect in these individuals is their inability to pass from given premises to right conclusions. They are essentially scatter-brained and have a poor grasp of essentials. Maudsley²² states that the work of these abortive geniuses "necessarily comes to naught because it is nothing more than the mental lightning of an inductive but erroneous reasoning."

Prodigies. Children who display an unusual development of some faculty at an early period of life are known as prodigies. Some of them, and the number is exceedingly small, are real genius-prodigies — the forerunners of future extraordinary aptitudes, whether musical, mathematical or histrionic, may excite wonder and astonishment, but the gift is usually evanescent. That an appalling number of brilliant children have never fulfilled their early promise is confirmed by the late history of these cases.

Among the ranks of juvenile talent are the youngsters who are gifted in a scholarly direction. They are the children with high intelligence quotients. In his study of school children, Terman²³ classified those who attained an I.Q. rating of 140 or above as "geniuses" and opined that they were destined to become the world's future leaders. Hollingworth²⁴, on the other hand, criticizes Terman's deduction on two counts; first, that there are other factors involved in achieving greatness besides an essential degree of intellectual capacity; and second, that "we cannot know with certainty however until a life

time has elapsed whether they (gifted children) will really become the eminent of their generation."

Idiot Savants. A form of atypical genius to which Langdon Down³⁵ gave the name "idiot savant" refers to a special class of mentally defective individuals who exhibit a remarkable development of some particular faculty, while at the same time the general mental capacity is below the average.

In a considerable proportion of idiot savants, the gift is one of memory in some form or another. The extraordinary memory in these cases is, however, associated with a marked defect of reasoning power. Some of the gifted aments, like "Blind Tom," the pianist, have pronounced memory for musical tunes.

Lotte²⁶ submits a case report of an eighteen year old blind feeble-minded youth who, though capable of performing wonderful calculations with lightning-like rapidity, retained no conception of true mathematics, algebra or geometry.

Some mentally defective patients, such as the celebrated Gottfried Mind, who gained renown as "The Cats' Raphael," exhibit an extraordinary talent for drawing. Others demonstrate an almost incredible talent for mechanical work as did the patient, known as the "genius of Earlswood Asylum," whose accomplishments were described by Tredgold²⁷.

Criminal Genius. The world has known many outstanding criminals who exercised great administrative ability in the field of organized crime, but, in all probability, the most notorious was Johnathan Wild, an English outlaw who operated in the early part of the eighteenth century. Criminals of the Jonathan Wild type are men of undoubted intellectual power. Their genius, however, does not muster up to the standards of the classical variety. Although men of true genius are not infrequently vain and arrogant, such traits are conspicuously evident in top-ranking criminals. The latter share this characteristic with a large proportion of artists and men of letters, though as Lombroso¹⁵ pointed out, criminals decidedly excel them in this respect.

The differentiation of true genius from the criminal type rests primarily on altruistic creativeness in the former as against selfish considerations in the latter. Disinterestedness character-

izes the man of true genius; cupidity, the man of evil genius. The criminal can only destroy; whereas creative genius indicates to humanity the way to an everlasting goal.

Insane Genius. Psychiatrists recognize that mental disease, on the whole, leads to diminution of mental power. Nevertheless, insanity, which creates such enormous gaps, does not always suspend all the faculties. An increase of intellectual activity is frequently met in certain forms of psychosis, particularly in the acute phases of mania.

It is known that a number of literary productions, bearing the stamp of genius, have been evolved in a state of madness. One of these is the poem, "Song to David", composed by Christopher Smart while he was confined in an asylum. Another actually insane author was William Blake who, even while indulging in hallucinations, drew and engraved one of the noblest of all his works, "The Inventions of the Book of Job." Still another was Nathaniel Lee who, during the course of an acute mental ailment, composed thirteen tragedies. To the foregoing names of insane geniuses, we can add those of Swift, Beaudelaire, De Maupassant, Southey and Nietzsche whose literary productions were evolved in the course of paralytic dementia which ailment ultimately claimed the lives of these famous men.

The concomitance of mental disorders in men of genius is a subject which has provoked considerable scientific discussion. The controversy has chiefly been concerned with the question whether genius is a pathological, potentially pathological, or non-pathological mental entity.

One of the oldest schools of thought, representing a large body of philosophical and scientific opinion, endorses the theory that genius is a form of insanity. The proponents of this theory are chiefly criticized on the score that they have handled the facts with a total disregard of scientific statistical standards. The method employed by Lombroso and others — the simple enumeration of great men with psychic abnormalities as proof of the essential psychopathy of all geniuses — is scientifically untenable.

Two investigations which have met the requirements of scientific exactitude with respect to

the question of genius and insanity were those undertaken by Ellis¹² and East²⁸. In his statistical analysis of British genius, Ellis found but 4.2 per cent who were definitely psychotic. On the other hand, East established the frequency of insanity in the general unselected population of the United States and Great Britain at 5 per cent, respectively. In Ellis' opinion then, the fact that the incidence of insanity in eminent men was less than five per cent which was no greater than that found in the general population of either Great Britain or the United States clearly invalidates the "psychosis theory" of genius.

Another prominent school of thought maintains the conviction that genius predisposes to the development of insanity. Maudsley²⁹ and Norman³⁰, who favor this concept, emphasize that fundamentally genius, like insanity, is characterized by mental instability. They contend that, because of the underlying mental disequilibrium, the genius is more likely to have a mental breakdown than is the more phlegmatic, realistic average man.

A third body of scientific opinion, led by William James, Hagen, Jurgens-Meyer and others, proclaims the sanity of true genius. The advocates of this concept believe genius to be a strictly normal deviation from the average on the plus side — the result of abilities higher than the average, but not essentially different from the average in kind.

In summarizing the discussion dealing with the relationship of genius and insanity, the conclusion follows that genius is a non-pathological mental phenomenon. In the exceptional cases where genius and insanity coexist, "genius is," as Kiernan³¹ affirms, "evidence of a healthy conservative element struggling with the incubus of disease."

DIAGNOSTIC CRITERIA

Four primary qualities serve as the measure of true genius. They are originality or inventiveness; disinterestedness or objectivity; universality; and productivity.

The quality of originality involves an unusual intensity of the "modifying power," that is, the power to give a new form of being to things. It is the faculty of giving rise to a unique and

startling conception, whether artistic, literary, scientific, philosophical or practical.

Disinterestedness or objectivity, which Turck³² regards as the primary attribute of genius, pertains to the manner in which the individual perceives, thinks or behaves toward the impressions of the outer world. This faculty implies detachment of the mind from every personal, subjective and self-seeking interest. In the opinion of Turck, an objective or disinterested mind is a *sine qua non* for "grasping the essential" in all things.

The degree in which one perceives and thinks in terms of the universal is the measure of his approach to real genius. In the sculptures of the Greeks, in the masonry of the Romans and in the pictures of the Tuscan and Venetian masters, the highest charm is the universal language they speak. Similarly, in the work of the great scientist and the philosopher, there is the disposition to interpret the nature of things generally, the universal in them.

Finally, as men in general are judged by their works, so creative intellects establish their mark in the scale of human achievement by the quality and permanency of their productions.

Genius and Talent. The terms "genius" and "talent" are frequently used in an identical sense. The two, however, are not synonymous. Genius is higher than talent. The former implies the highest conceivable form of original creative ability; talent is merely the instrument of the genius displayed. Genius is capable of operating independently of tuition and training. Talent, on the other hand, is to some extent acquired; it is largely the capacity to learn, appropriate and adapt oneself to demand. From the standpoint of human needs, talent supplies the demand; whereas genius creates the demand. Genius works in solitude; talent, in the stream of the world. The works of talent fade away in the march of ages and sink into obscurity; those of real genius never leave us: their works are immortal.

Eminence and Greatness. Men of true genius are generally styled "eminent" or "great." It is one thing, however, to have the intellectual condition of genius and another to be recognized as eminent or great and figure in biographical dictionaries. An eminent man may be great in the estimation of the world of his own and later

ages, or both, without deserving the rank of true genius. On the other hand, the man of real genius who is inherently great but who fails of recognition, fails also to achieve eminence. A painter whose creation is destroyed before it is seen, or an author whose work is lost before it has been read, may be great but he can scarcely be eminent. The attainment of fame, moreover, is no criterion of greatness. True greatness is revealed in the individual who, in a great position or amidst great opportunities, rises superior to his own person and gives more humanity than is received. To sum up, the true genius is one who, like Pasteur, Humboldt and Roentgen, combined an illustrious fame with high creative achievement and evidences of intrinsic greatness.

SOCIAL TREATMENT OF GENIUS

The man of genius, like the average individual, functions in intimate relation to the social order in which he lives. Like the ordinary man, the great leader is open to certain rewards and punishments. Whatever his field of activity may be, the reward and punishment are always the same. The reward is social recognition; the punishment, pitiless criticism, ridicule and social hostility.

Social recognition is shown by the ability on the part of his fellow-men to appreciate the unique creative powers of the genius and to establish him in a position of economic security. In days gone by, many a struggling pioneer in science has, for want of immediate social recognition, been allowed to starve or spend his energies in a hidden groove and witness the attribution of discoveries of his own to those who have come into the scene at the eleventh hour and receive the reward of his labors. Today, thanks to the protection provided by patent laws, the benefits of individual inventors are safeguarded. The fact that these laws insure a fair reward for meritorious work has done much to stimulate research and invention. In the past, the garret inventor was on his own. And now, in our large research laboratories, the products of invention are the cooperative result of a number of trained minds and the reward is meted out to each by the manufacturer.

Men of original mind, especially those whose ideas are far in advance of their time, are likely objects of ridicule. Philadelphians ridiculed

Benjamin Franklin when he suggested the use of electricity for industrial purposes. People greeted the first crude steamboat, "horseless carriage" and aeroplane with skepticism. Neither have medical discoveries been free from skepticism. Jenner was maligned by the press for his work on vaccination, and Lister's ideas of antiseptics were scoffed at by other surgeons. Likewise, Koch's concept of tuberculosis as a contagious disease was ridiculed by the medical profession in his day.

The man of genius may be ridiculed or even persecuted, as many have been in the past, but the qualities which characterize his genius remain unaltered through the ages. Recognition of the true worth of his accomplishments is his chief reward, but, unfortunately, he may be denied this during his life time. It has frequently been said that it takes a hundred years for mankind to appreciate the real greatness of genius. Schopenhauer accordingly suggests that "he who wants to do great things must direct his gaze to posterity, and elaborate his work for coming generations." Eventually, the works of real genius, standing the test of time, are fully appreciated by mankind which then shows its gratitude by erecting monuments in commemoration of its great benefactors.

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CONGENITAL ABNORMALITIES OF MENTAL PATIENTS

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It is an interesting question: Is mental abnormality linked with anatomical abnormalities? Is the coincidence of congenital abnormalities among mental patients higher than in general population?

From 1939 until 1941 a hundred postmortems were performed in the Pathological Department of Anna State Hospital, Anna, Illinois. Among them, the following abnormalities were found:

1. The left internal carotid artery furnished the left and right anterior cerebral artery. The right anterior cerebral artery communicated with the stem of the right internal carotid artery through a communicating artery.

This abnormal behavior might become interesting from the clinical standpoint. In such a case an occlusion of one internal carotid artery might cause symmetrical places of softening in each cerebral hemisphere. In this connection, attention should be paid to the fact that in

the monkey unilateral artificial destruction of the frontal lobe cannot be distinguished from bilateral destruction by the postoperative behavior of the animal.

Comparative anatomy distinguishes three main types of arterial supply of brain: The *Homo Sapiens* type in which the blood is equally supplied by the internal carotic and the vertebral arteries; the *Lemur* type (monkey) in which the vertebral arteries are the main ones; the *Bos Taurus* type in which the carotic arteries are the main arteries.

2. Bilateral ossifications of the stylo-hyoid ligament. The stylo-hyoid ligament extends from the styloid process of the temporal bone to the lesser cornu of the hyoid cartilage. The stylo-hyoid ligament is the remains of the cartilaginous bar of the third visceral arch. In this arch appear ossification centers from the end of fetal life on. These centers are destined for the body of the hyoid bone, for the greater and lesser cornu, and for the styloid process. The intervening portion of the third visceral arch undergoes resorption, and becomes converted into fibrous tissue which in the adult connects the lesser cornu with the styloid process of the temporal bone. In certain cases, however, the cartilage does not undergo resorption, but has passed into the next stage of ossification, forming a so-called epihyal bone like in the dog, wolf and fox.

3. An abnormal branch of the aortic arch, the *arteria thyreoidea ima*. Normally three arteries branch off from the aortic arch, namely the innominate artery, the left common carotic artery, and the left subclavian artery. Normally, the thyroid is supplied with arterial blood through the superior thyroid artery (a branch of the external carotic artery) and through the inferior thyroid artery (a branch of the *truncus thyreo-cervicalis* which branches off from the subclavian artery). In this case, however, there was an abnormal thyroid artery arising from the arch of the aorta between the origin of the left common carotic artery and the left subclavian artery. This *arteria thyreoidea ima* took its course cranially behind the common carotic artery and lost its branches in the substance of the left thyroid lobe. The arterial supply of the right thyroid lobe was normal.

4. A patent foramen ovale. In early stages of embryonic development of the heart, there

exists one common primitive atrium. Its cavity becomes subdivided later into a right and left atrium by the septum primum, which grows downward into the cavity. Below the free margin of the septum, the atria communicate with each other by the ostium primum of Born. This opening is closed by the union of the septum primum with the septum intermedium. A second communication between the atria is developed by an opening in the upper part of the septum primum; this ostium secundum of Born or foramen ovale persists until birth. It is closed by the fusion of the septum primum with the septum secundum, which grows to the right of the septum primum. (After Gray's Anatomy)

5. A patent ductus Botalli. This ductus Botalli is the remains of the left fifth aortic arch of the embryo and connects the upper surface of the pulmonary artery with the lower surface of the aortic arch.

6. Three cases of diverticulosis of the colon, especially of the sigmoid. In 1931, Dr. Robert Baumann in Zurich, Switzerland, expressed the theory that in such cases there is a primary aplasia of the muscular stratum of the colon, and that secondarily the mucus stratum is evaginated through the weakened places of the tunica muscularis.

7. A case of abnormally long appendix. Its length measured 18 cm. Cunningham's Textbook on Anatomy gives a maximum length of an appendix as 23 cm. It is interesting to know that herbivorous animals have a long cecum, while carnivorous animals have a short cecum.

8. One case of urachus-diverticle of the bladder. The bladder was of normal size and shape, except that there was a diverticle-like prolongation on the superior pole of the bladder consisting of a complete muscular and mucous coat. The urachus leads to the allantois, which is a fore-runner of the placenta. It arises from endodermal and mesodermal tissue.

9. A case of uterus bicornis et arcuatus. The female genital tract originates in the mesodermal tissue. The ducts of Mueller are symmetrically developed. In a later period of the fetal life, the symmetrical ducts amalgamize to one common organ from the superior angles of the uterus downward. In this case, the amalgamation did not take place at such a high level.

10. A case of hypospadias. This anomaly is caused by an incomplete closure of the sinus urogenitalis.

11. An interesting developmental abnormality was found during clinical examinations of living mental patients. In 1933, Dr. Geyer, Assistant Professor of Anthropology of the University of Vienna, Austria, published a paper on "Bandfoermige Helix". The helix is the prominent rim of the human auricula above the fossa triangularis and the scapha. It consists of skin which covers the rim of the auricular cartilage from the spina hellicis to the cauda hellicis. Un-

der normal conditions the transverse cut of the helix is of round shape. A band-like helix appears like a flat band and is oval on transverse section. Geyer found this malformation rather frequently among the population of an Alpine valley. For statistical reasons Geyer concluded upon a recessive anlage.

It is my firm belief that this recessive malformation, which is congenital, has a higher incidence among mental patients than among the average population. It seems that among schizophrenic patients especially, this somatic stigma is frequently found.



DOCTOR URGES HEART PATIENTS TO LIVE NORMAL, USEFUL LIVES

Journal Author Believes People Can Be Made Happier If Their Physical Activities Are Unrestricted

A Philadelphia physician states that many patients who have serious complications of the heart can be reassured and allowed to live normal lives, according to the October 19 issue of *The Journal of the American Medical Association*.

William D. Stroud, M.D., who is on the board of directors of the American Heart Association, points out that there are "many murmurs, especially in the pulmonary area, which are absolutely of no importance from the standpoint of circulatory efficiency or length of life. In fact, many children with definite valvular damage live the full span of life and others do not develop circulatory insufficiency until the third, fourth or fifth decade. Certainly their lives can be much happier if their physical activities are unrestricted, and I doubt whether the normal physical activity of childhood plays any part in the progress of the pathologic lesion."

Medicine can aid patients with heart trouble to lead practically normal lives, according to Dr. Stroud. "Most people with coronary insufficiency know the things that bring on pain, such as walking after meals or in cold weather against the wind," he states. "If it is necessary for these persons to make such effort, it is perfectly possible for them to ward off an attack by dilating the coronary vessels with a tablet of glyceryl trinitrate before making such an effort."

Dr. Stroud is of the opinion that patients with heart trouble should be permitted to smoke and drink.

"Most people who smoke know whether or not they

are sensitive to nicotine," he said. "If a man is not sensitive to nicotine, I believe it is perfectly safe for him to smoke. However, sensitive or not, in the presence of angina of effort or a healed coronary occlusion if a person is having substernal pain I believe eliminating tobacco will tend to lessen the frequency of attacks of pain.

"Many physicians advise patients with hypertension or coronary artery disease or any form of heart disease not to drink. For myself I see no reason why patients with these conditions should not drink in moderation. Many patients with angina of effort secure as much relief from brandy or whisky as they do from glyceryl trinitrate and I see no reason why they should be deprived of the pleasure of drinking unless there is some evidence that alcohol is injurious."

The author holds out further hope for the heart disease patient by concluding in this optimistic tone: "I feel that the average patient with a healed coronary occlusion can return to a sedentary occupation part time in about three months. Although it is debatable, because of the possibility of further occlusions, I believe it is safe to allow such patients to drive a car three months or so after their acute episode. Also if they do not have angina of effort three or four months after their original attack any mild form of exercise such as golf or swimming in warm water seems indicated, if desired. It is my feeling that too many such patients are made total invalids unnecessarily. In fact, it is my experience that after adequate collateral circulation has developed it really doesn't seem to matter what activities these persons carry on within reason from the standpoint of developing further coronary occlusions. Certainly a patient is a happier and more useful member of his community if he can lead an approximately normal life."

Industrial Health

Committee On Industrial Health — Jos. H. Chivers, Chm., 836 S. Michigan Ave., Chicago 5, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

A well balanced medical program in Industry requires a pattern of service that will allocate to the qualified engineer certain responsibilities for the maintenance of a healthful working environment. This is not primarily a medical function but must be recognized as a valued adjunct in preventive medicine. The following article from INDUSTRIAL HYGIENE LETTER (December 1946) outlines the newer concept of the function of Industrial Hygiene in the medical program.

A MODERN CONCEPT OF INDUSTRIAL HYGIENE

The basic function of industrial hygiene is to make workers healthy and keep them so. On this there is universal agreement. And yet, is the orientation of most of us such as to simplify our task? Is our approach to the problem the most faithful one? It has been suggested that an evaluation of our efforts may be helpful.

OCCUPATIONAL DISABILITY EARLIEST CONCERN

Historically, industrial hygiene grew up in response to the problems of the prevention and treatment of the most dramatic of workers' disabilities — occupational injuries and diseases. It was only natural that this should have been its origin; and that it should have been in part identified, in the beginning, with official agencies charged with improving the welfare of workers. During the years, a formidable body of knowledge has been accumulated in traumatic surgery, industrial toxicology, mental hygiene, dentistry, nursing, engineering, morbidity statistics and related fields. A corps of specialists has been trained to apply and to add to this new knowledge. These experts have made, and are

making a vital contribution to workers' health. They must be encouraged, and their opportunities expanded, in proportion to the greatly accelerated technological advance of our industries. But is there more that can be done?

NINETY PERCENT DISABILITY IS NONOCCUPATIONAL

Through studies on disability and absenteeism, it has been demonstrated that about 90 percent of workers' disability is nonoccupational in origin. For every day lost due to industrial diseases and accidents, 15 are lost as a result of ordinary adult illnesses. These lost days have quantitatively much more of an adverse effect on our economy than those in the first category. Is the problem of keeping workers healthy being attacked on all fronts when emphasis is laid on promoting implant medical services for the control of occupational disability? Has the role of general medicine care as an instrument of preventive medicine been appreciated fully?

BARRIERS TO MEDICAL CARE

One of the barriers to adequate medical care for the worker is his lack of knowledge in matters of health. We in industrial hygiene attempt to solve this problem by encouraging such activities as health education, nutrition programs and periodic physical examinations. When an illness or defect is discovered, the worker is usually referred to his private physician. We also encourage the plant medical service to give workers advice on nonoccupational illnesses — short of actually treating them, save for minor conditions and emergencies. These preventive measures have accomplished a great deal in improved health of workers. The problem is of such mag-

nitude, however, that the surface has hardly been scratched.

The fundamental barrier to adequate medical care is an economic one. The average wage earner cannot afford the best modern medical care — at least not when he has to pay for it on an individual basis. Several well-known studies on the costs of medical care, some by the United States Public Health Service, have demonstrated this fact.

TYPES OF MEDICAL CARE PROGRAMS

Certain far-seeing industrialists have known this for years. Some have encouraged mutual sick benefit associations, operating on the insurance principle, to help protect their workers against loss of wages during illness (indemnification plans). Others have established direct service organizations like the Endicott-Johnson Workers Medical and Relief Department, or, more recently, the Permanente Foundation Health Plan for workers in West Coast shipyards.

Organized labor also knows the relationship between medical care and the ability to pay for it; and has shown an increasing awareness in the past few years. Working on the premise that the worker's health is his only capital, unions have felt that the promotion of prepayment plans for spreading the risk of medical care costs is their legitimate function. They started out with plans which were financed entirely by union members, through dues or special assessments. Recently, however, the trend has been to make employer participation a demand in collective bargaining.

RECENT TRENDS

Hundreds of contracts have been negotiated on this basis during the last few years. Many of these plans operate through commercial insurance companies by indemnifying workers for various types of sickness and medical care costs. Many others purchase hospitalization benefits through the Blue Cross, which is a modified type of service organization. An exception is the Labor Health Institute of the St. Louis Council, United Retail, Wholesale and Department Store Employees, CIO. This is a comprehensive plan for medical care, including physicians' services in the home and health center. It is financed entirely by management (which contributes 3½ percent of the pay roll) and ad-

ministered by a board of trustees on which both management and labor are represented.

Official agencies, too, have been active for some years in sponsoring proposals to help budget the costs of medical care. It is quite clear, however, that organized labor and many industrialists are not waiting for official action. They are moving ahead with their own health insurance programs. If we in industrial hygiene intend to attack the problem of industrial disability at its core, it is imperative that we at least familiarize ourselves with this movement.

ARE COLD WAVE SOLUTIONS HAZARDOUS TO THE SKIN?

Question: Does a potential health hazard exist for beauty parlor operators and home users who handle cold-wave solutions and if so, what protection can you suggest?

Answer: Most cold-wave solutions contain ammonium thioglycollate, a derivative of thioglycollic acid. Both of these chemicals are primary skin irritants, especially in strong concentrations. Beauty parlor operators whose hands come in continued contact with its irritant action when they give cold-wave treatments should be protected by wearing rubber gloves.

Women getting cold waves in beauty parlors should have the forehead and face well protected either by towels or grease so that the first or reducing solution (ammonium thioglycollate) will not touch the skin of the face and forehead. The solution should be carefully applied to the hair so that a minimum amount touches the scalp.

Cold-wave solutions sold in stores to be used at homes usually are not as strong as those sold for use in beauty parlors and there is less likelihood of developing a dermatitis from them. Nevertheless, the user should protect herself in the same manner as described above for those getting cold waves in beauty parlors. The use of cold-wave solutions for 15 or 20 minutes on the hair should be followed by the use of water to wash the solution off the hair.

If the cold-wave solutions are used with the proper precautions described above they will not harm the hair any more than other methods of permanent waving. For the protection of the operator and the patron, explicit directions should be printed on bottles of cold-wave solutions.—*Industrial Hygiene Newsletter, December 1946.*

Council Meeting Minutes

Chicago, Illinois November 24, 1946.—The November meeting of the Council was held at the Palmer House on Sunday, November 24, 1946, with the following present: R. S. Bergoff, I. H. Neece, L. J. Hughes, E. C. Cook, P. E. Hopkins, Oscar Hawkinson, H. M. Hedge, L. P. A. Sweeney, H. P. Saunders, C. P. Blair, R. P. Pearirs, Walter Stevenson, Harlan English, C. O. Lane, G. C. Otrich, E. S. Hamilton, E. P. Coleman, H. M. Camp, James H. Hutton, Warren H. Cole, John Rogers of Illinois Branch, American Cancer Society, Roland R. Cross, Director, Department of Public Health, Mr. James Leary, public relations counsel, F. M. F. Meixner, B. A. Cockrell of Veterans Administration, J. H. Chivers, Mr. E. W. Rawlins, general counsel for the Society, J. P. O'Neill, H. Kenneth Scatliff, Ann Fox and Frances Zimmer.

MOTION: (English-Hughes) that the minutes of the last meeting of the Council be approved as mailed to members. Motion carried.

Secretary's Report

The Secretary read his report commenting on the political situation following the recent election, and the breathing spell extended the medical profession to a mass material with which to combat legislation of the Wagner-Murray-Dingell ilk. Also mentioned was the health and welfare services for workers and members of their families contemplated by mine workers payable from the accumulating fund from an allocation of five cents for every ton of bituminous coal mined. The fund is nearing 15 million dollars and the distribution of these benefits will be important to the members of the profession as well as to the miners and their families.

The Illinois Nurses' Association is contemplating the introduction of a new law to regulate the licensure of graduate nurses and also practical nurses. An examining board to conduct the examination would be set up under the proposed bill, and one of its functions would be to license practical nurses who would then be unable to care for patients and charge for such service unless they were licensed. The Council should take some action relative endorsement by the Society prior to introduction of the bill.

Report of the President

Dr. Bergoff reported as president and stated that the Committee on Scientific Work, composed of the

officers of the various Sections, had met and opened the work for the 1947 annual meeting of the society. All sections were represented and a keen interest was expressed by all present. An efficient executive and correlating committee was established to secure, schedule and time the scientific presentations. The work was allocated and if this meeting is any indication, the prospects for an outstanding meeting this year are excellent.

The Scientific Service Committee is compiling a new Handbook of speakers. The co-chairman of the Scientific Service Committee, Dr. Leo Sweeney, and the co-chairman of the Post-Graduate Committee, Dr. Hellmuth, are assisting with the work in the Educational Committee office.

As president of the society, many cities in Illinois have been visited: Quincy, Decatur, Princeton, Anna, Peoria, and down to St. Louis for the Mississippi Valley meeting, I would like to stress the importance of the Benevolence Fund, and the opportunity during the coming months to collect funds throughout Illinois to develop this outstanding activity of the Society. Through the pages of the Illinois Medical Journal this request for funds could be publicized; letters signed by the chairman of the committee could be sent to all members of the society asking for contributions, and in this way, the profession can begin to do something for itself.

Relative to the Nursing Bill, the chairman of the Council should appoint a committee to study this material and report back at the proper time.

The Hospital Survey in Illinois is complete, and a return of 99.7 has been secured. The work, under the direction of Doctor Cross and his Department, and conducted by Henrietta Herbolshimer, has been outstanding. The need for hospital beds in areas in Illinois is obvious, and the work under the Hill-Burton Bill will be something which the medical profession should watch carefully.

Benevolence Fund

Hawkinson: The Benevolence Committee has quite an amount of money on hand, transferred to that fund by action of the Council. We should, if we have a campaign for funds, keep some objective in mind; perhaps a home for these old people, or a fund of

sufficient size so that the income only be expended for this work.

MOTION: (Bergoff-Hawkinson) that a letter be sent to all members of the Society relative to these contributions, and that the Journal carry publicity to assist in the campaign. Motion carried.

Taft Bill

The President-Elect Neece stated that a conversation with Senator Taft has brought out the fact that he intends to introduce a bill which will provide care for the low income group on a matching fund basis. Federal aid will be given to permit states to distribute health insurance funds. Most individuals in this group can pay over a long period of time, but collapse under the threat of a catastrophic illness. He insists that the control be vested in the state and local areas, and he definitely is amenable to suggestions from members of the medical profession.

Sterilization Surgery

Also for your consideration, is the problem of the liability of the medical profession doing sterilization surgery for any other than health purposes. The Attorney General of the state of Missouri has ruled that the physician who performs such an operation may be criminally liable unless such surgery is done to preserve the life of the patient or to prevent serious impairment of health. Since an individual is placed in position secondary to society, and cannot give personal consent to mayhem criminal action against the physician is possible. (Discussion by Hawkinson, Coleman, Blair)

MOTION: (English-Neece) that we secure the opinion of an attorney in this problem. Motion carried.

Coleman's Report

Coleman reported as Councilor at large stating that he had appeared at several meetings, spoken before township officials in a meeting held at Chicago, P.T.A. groups, Welfare Association meeting held in Peoria, and before a meeting of x-ray technicians. All these groups are kindly toward organized medicine, and all need leadership. Contacts should be made and kept with them. The vote on the Health Units throughout the state shows the influence of the profession. In the 17 counties where the medical profession approved the project, the vote was in favor of the state setup; in Rock Island where the members of the local medical society opposed the project, it was defeated at the polls.

Committee on Medical Testimony

Hawkinson: It would seem to me that the state society should develop some Committee on Medical Testimony such as is now functioning in Chicago. Letters went out signed by the president of the Bar Association and the Chicago Medical Society to inform members of the committee and its functions. This would have to go to the House of Delegates,

where it met with serious rebuff in 1944, and perhaps should be introduced again next year.

Education Committee Report

Hutton reported as chairman of the Educational Committee, and took this opportunity to introduce the new secretary, Miss Ann Fox, formerly employed at the A.M.A. office. Work of this office has been carried on since Miss McArthur's resignation by Mrs. Simmons assisted by Mr. Neal and Mr. Leary.

Medical Service and Public Relations

Hutton reported as chairman of the Committee on Medical Service and Public Relations stating that the committee met jointly with the Educational Committee on October 8th. Mr. Leary submitted an interim report on his activities as public relations counsel, and conducted the "Do You Know" column during the time no secretary was employed in the Educational Committee office. The work of this committee is developing pleasant relations with lay organizations and giving us leadership in a positive program.

I would like to have Council approval of the recommendation I made that the U.S.P.H.S. assign Doctor Newitt permanently to the Chicago area for consultation and act as controller in the tuberculosis activities.

MOTION: (Hamilton-Neece) that the letter written by Doctor Hutton advocating the assignment of Doctor Newitt to this area be approved. Motion carried.

Veterans' Advisory Committee

Hopkins reported as chairman of the Advisory Committee to the Veterans Administration relative to progress under the program for care of veterans at home by the physician of choice. The setup in Illinois, since Dr. B. A. Cockrell has taken over as Chief Medical Officer of the Regional Office, has been more than satisfactory. Over 3,000 veterans have received care from private physicians, and over 34,000 hospital days in private institutions have been provided under the program.

Cockrell Speaking

Doctor Hopkins introduced Doctor Cockrell, a guest at the meeting. He stated that he had received his "preliminary training" under the similar program now in force in Ohio. When he came to Illinois there was a heavy backlog of work, and a good many problems to be ironed out throughout the rural and urban areas of the state. The Administration desires to use the hospital facilities in the area for the treatment of local cases. All but two tuberculosis sanatoria in the state have agreed to allocate a number of beds to veterans; other hospitals have agreed to take cases on their ordinary routine basis, and to handle emergencies in their customary manner. Hospitals may have a contract with Veterans Administration direct, or they may deal through the Blue Cross. Doctor Cockrell assured the Council of his willingness to cooperate in every way, and to work with the

physicians throughout the state to make the program a continued success.

The proposed changes in the fee schedule were outlined for Council consideration as follows:

3a. Dermatological treatment	\$ 5.00
15a. Genito-urinary treatment	5.00
16a. Gynecological treatment	5.00
21. Routine office examination, including treatment	5.00
353. Blood transfusion, complete	35.00
363. Office visit (follow-up)	2.00
379a. Rh. factor	5.00
409. Macroscopic examination	2.00
409a. Microscopic examination	5.00
444. Electrocardiogram	7.50
450. Removal of foreign body (superficial)	10.00
(deep)	25.00
451. Psychiatric treatment (psychotherapeutic conference) at least 50 minutes	15.00
452. Psychiatric treatment (psychotherapeutic conference) 25 minutes or less	7.50
453. Treatment of neurologist	5.00
(This treatment is understood to be the usual follow-up care and observation after diagnosis has been made at original neurological examination.)	

Standards for neuro-psychiatrists to be designated for such therapy are as follows:

1. QUALIFICATIONS:

- Certified in Psychiatry by American Board of Psychiatry and Neurology, or
- Possession of one of the following ranks in an accredited medical school:
 - Any professional rank in Psychiatry.
 - Associate professor in Psychiatry.

2. EXPERIENCES

- At least four years of two half days a week in an accredited Mental Hygiene clinic or similar institution in which modern therapeutic principles and techniques were practiced, or
- Certification by the American Psychoanalytical Association and four years' practice of Psychiatry using this, or other forms of modern psychiatric treatment, or
- Two years' certified training and experience in the Armed Forces or in any other accredited institution in which intensive individual therapy was practiced and taught, with two additional years of similar practice, either private or institutional.

MOTION: (Hopkins-Otrich) that these changes and additions be approved. Motion carried.

MOTION: (Hopkins-Blair) that a new brochure be printed containing these changes and sent to the men participating in the program. Motion carried.

Prepaid Medical care

Hopkins reported as chairman of the Committee on Prepaid Medical Care Plans stating that the committee had met twice since the last meeting of the Council, and had adopted four new principles for participating companies. These principles are in the process of being reworded at this time by John W. Neal. Three com-

panies are ready to write the insurance and have been approved by the committee.

The Associated Medical Care Plans (an organization which was an outgrowth of the action on the part of the House of Delegates of the A.M.A. at the San Francisco meeting) held a conference at the A.M.A. headquarters on October 4-5. Some twenty states and plans were represented and the most interesting event at the two day session was the action taken relative to membership for the state of Wisconsin. Two types of membership are offered at this time, full membership for states having a medical service plan, and associate membership for those states in which commercial carriers are used. The members present voted to extend full membership to Wisconsin, even though some 27 commercial carriers are participating in their present plan for providing prepaid medical and surgical care in that state.

Illinois should prepare a brochure containing the principles of our plan, assemble the material in a presentable form, and file an application with this group as soon as definite information is secured from the A.M.A. relative to the requirements for membership.

MOTION: (Hopkins-Hedge) that the Council authorize the expenditure of necessary funds to prepare this material and to make up the necessary literature to meet the requirements of the A.M.A. Motion carried.

Meixner's TB report

Doctor Meixner, as chairman of the state society Committee on Tuberculosis spoke concerning the importance of the control of this disease throughout the state, and the various facilities available for such work. The family physician is the key stone in this control work, and there is a definite need for contact with him. In the past the men interested in this work had tried to present a paper on tuberculosis before the various Sections of the Society during the annual meeting. Since there are more and more general sessions, fewer speakers have been necessary. It was thought that at some time in the future, a Section on Chest Diseases might be requested from the House of Delegates, but the need is not evident at this time.

The committee would like to establish an active Committee on Tuberculosis in every county in Illinois so that all work could be done through this committee. Then, too, we would like to request that each county society have one meeting each year devoted to tuberculosis. At this time we will request that a letter be sent out to all county society secretaries stating (1) the need for this committee and the need for added activity along this line, (2) request that each county society appoint a committee at the county level, and (3) that an annual tuberculosis program be sponsored by the county society.

MOTION: (Berghoff-English) that the Council agree to this letter being sent out, and concur in the recommendations of the committee. Motion carried

Cross asks Dept. control of T.B.

Doctor Cross, as Director of the Department of Public Health, asked the Council to go on record as recommending that cases of tuberculosis be under the control of the Department of Public Health as are other communicable diseases in the state of Illinois. Under the present Glackin law, county control boards are set up and the work is alarmingly inadequate. The spread of the disease, particularly in the southern part of the state, is alarming.

Berghoff: Under the Hill Burton Bill we should be getting new hospital beds in Illinois, and it might be well to suggest that 50% of these beds be made available for tuberculosis.

MOTION: (Berghoff-Hamilton) that the Council concur in the recommendations made by Doctor Cross that tuberculosis cases, as is true with other communicable diseases, be placed under the control of the department of Public Health. Motion carried.

Chivers Industrial Health Report

J. H. Chivers, chairman of the Committee on Industrial Health, reported the seventh annual Congress on Industrial Health held in Boston September 30 to October 2, and which he attended as the official representative of the state society. There were 363 official registrations from the United States, 11 from Canada and 6 from foreign countries. The program covered subjects on industrial poisoning, trauma and rehabilitation, industrial physiology and capacity to work, workmen's compensation procedure, industrial medical administration, and clinical research in industry. Copies of the individual papers may be obtained from the speakers, or a copy of the entire proceedings will be available soon from the A.M.A. Council on Industrial Health.

Blair's C. & B.L. Report

Blair reported as chairman of the Committee on Constitution and By-Laws and stated that there were two things that the Council should consider and on which they should express an opinion. Shall the C. and B.L. Committee present changes in the constitution at the next meeting of the House of Delegates to provide for a committee on Medical Testimony, and should the committee present changes pertaining to the tenure of office of the Councilors-at-large. Some of the men throughout the state feel that a three year term following the presidency, as Councilor-at-large is too long a period. Members of the council should think over these two problems and bring them up for discussion at the next meeting of Council.

Scatliff's Annual Meeting report

Scatliff reported as General Chairman of the Committee on Arrangement relative to work for the 1947 annual meeting. Van Dellen as chairman of the Executive Committee, will plan the scientific sessions for the society. The local committees are being appointed, and only those committees which have active duties to perform will be asked to serve this year. The announce-

ment of the committee personnel will be made soon.

There are three things to which I would like to call your attention: (1) the appointment of additional members of the Committee on Arrangement; (2) the issuing of a daily bulletin during the meeting, and (3) the establishment of a message center near the registration booth at the meeting.

Report on Cancer Control

Warren H. Cole, as chairman of the Committee on Cancer Control of the state society reported on state activities planned by the Illinois Branch of the American Cancer Society. He had brought Dr. Rogers, full time Director of the Illinois Branch, with him to the meeting for the purpose of presenting their plans. Cole stated that several things were very obvious, (1) that there was a definite need for the early diagnosis of malignancies, (2) that present knowledge should be disseminated throughout the medical profession so that the best possible use could be made of present information. All facilities should be used and should be available to all physicians throughout the state.

The Illinois Division of the American Cancer Society is acting as the clearing house for the distribution of ideas. The Council and the State Society should be kept informed of activities and the various phases of activity. The Department of Public Health has a heavy role to play; medical schools must provide the correct teaching; hospitals cooperate to provide adequate care, and post-graduate education must keep the profession informed of progress.

Following the hospital survey in Illinois, and when funds become available under the Hill-Burton Bill, Illinois should have more than one hospital devoted to cancer. One of these hospitals should be for research and should be located near the teaching centers here in Chicago. This would provide teaching facilities and would perform a public service.

The post-graduate education program now contemplated will provide a short course in cancer diagnosis for men from the downstate area, and the American Cancer Society would like to know how these men should be selected.

Rogers stated that the American Cancer Society plans to present a symposium on January 18 to 25th and will pay for hotel accommodations and railroad fare for the men selected to take this course. Eighteen double rooms are reserved at the Morrison Hotel, and the Council is requested to determine how these men are to be selected.

The American Cancer Society is preparing a manual for use in schools, for teachers and students. The students are to be asked to take this material home so that information can be sent out through the family group. All material of this type should be approved by the Society. Ten terminal cancer cases are to be provided with bed care and nurses hired to take care of them. Rogers would like to know if Doctor Cole and his committee can be authorized by the Council to approve these projects as they arise to expedite matters.

MOTION: (Cook-Hughes) that the county medical societies recommend the men to take these post-graduate courses. Motion Carried.

MOTION: (English-Blair) that the state society Committee on Cancer Control be given the authority to approve state wide project contemplated by the American Cancer Society in Illinois. Motion carried.

Nurses' Bill

Stevenson: At the meeting of the Executive Committee last night the proposed bill for new legislation to regulate the licensure of graduate and practical nurses was discussed at length. A copy of this bill has been sent each of you, and the Executive Committee recommends that a committee be appointed to study the bill and report back at the next meeting of the Council.

MOTION: (Hughes-English) that the Chairman appoint such a committee, and that it report at the next meeting. Motion Carried.

Note: — This function was delegated to the Committee on medical Service and Public Relations by the chairman —

Mental Hygiene Legislature

Camp presented a letter from the Illinois Society on Mental Hygiene asking that the state society have a representative in Springfield on Tuesday November 26th, to attend a meeting where the revision of present laws relative to the commitment of epileptics would be discussed. Dr. Abraham Levinson, chairman of the committee, was unable to attend, and Dr. Gerald M. Cline of Bloomington was requested to act as the official representative of the Society. He is a member of the committee, and will make a report at the next meeting of the Council.

Pediatric Work at County Level

Camp stated that Dr. Poncher, in charge of the Survey of Child Health Services in Illinois being conducted by the American Academy of Pediatrics, had written to request that all matters pertaining to child health be referred to the county committee under the present setup developed by the Academy to assist in the completion of the survey. This work would consist of such activities as the summer roundups carried on by P.T.A., etc., and if lay organizations knew that there was a definite local committee to assist in child health services, this would encourage contact with the profession and develop better health conditions.

MOTION: (English-Neece) that Poncher be informed that the Council approves the use of present committee setup for child health activities at the county level. Motion carried.

Emeritus Membership

MOTION: (Cook-Hedge) that the following members be elected to Emeritus Membership:

James S. Rankin, DeKalb, Illinois, DeKalb County
Victor Darwin Thomas, Terrell, Texas, Knox County
F. C. Gale, Pekin, Ill., Tazewell County
Medical Society Albert P. Hedges, 4753 Broadway, Chicago, C.M.S.
J. B. Jack, Brock, Nebraska, Chicago Medical Society Motion carried.

MOTION: (Hughes-Blair) that the bills as audited by the finance committee be approved. Motion carried.

The Council adjourned at 2:30 p.m.

Respectfully submitted,

HAROLD M. CAMP, M.D., Secretary

By-F.C. Zimmer



STUDIES SHOW NEW DRUG SUPPRESSES MILD FORM OF MALARIA

A new antimalarial drug, pentaquine (SN 13,276—a complex chemical with the appearance of yellow needles), has been found effective in suppressing infections due to the commonest and mildest form of the disease known as *Plasmodium vivax*, according to the October 12 issue of *The Journal of the American Medical Association*.

R. F. Loeb, M.D., New York, chairman of the Board for Coordination of Malarial Studies, in cooperation with other members of the board, investigated the action of the drug in civilian establishments under the sponsorship of the Committee on Medical Research of the Office of Scientific Research and Development and in various Army installations.

Some of the pertinent conclusions drawn from these studies are:

Pentaquine, studied in mice, rats, dogs, monkeys and human beings, is rapidly and completely absorbed from the gastrointestinal tract.

It has an undesirable, but, at present, ill defined effect on the heart and circulation when administered in large doses.

The poisonous quality of pentaquine is too great to warrant its use in preventive treatment or prolonged suppression of malaria.

The action of this drug was studied on 171 white volunteers. The investigators concluded that a daily dose of 60 milligrams of pentaquine and two grams of quinine administered concurrently in divided doses every four hours for 14 days is "sufficient to produce radical cure of severe infections due to *Plasmodium vivax*." However, they caution that the daily dose of 60 milligrams should not be exceeded. "Pentaquine should be administered only under close medical supervision, preferably during hospitalization," they add.

In conclusion the article states that the poisonous effect of the drug in Negroes and persons of mixed racial extraction and the safe treatment dosage for children are at present undetermined.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

CHAMPAIGN COUNTY

The Champaign County Medical Society paid homage to its 32 veterans who have returned from service in the armed forces with a dinner at the Champaign Country Club. They also honored its one gold star veteran, Gayle Laymon who died while serving in Alaska. Dr. C. S. Bucher, president, presented a posthumous award to Mrs. Laymon. Dr. W. H. Schowengerdt spoke on behalf of the veterans and Dr. A. C. Ivy was the guest speaker.

Doctors Glen Smith and John Westra, members of the Christie Staff, attended a series of clinics sponsored by the American College of Physicians in Chicago in November.

COOK COUNTY

Dr. J. P. Greenhill addressed the New York Academy of Medicine on "Anesthesia in Obstetrics" on Nov. 26th, and on Nov. 28th he presented a paper on "Recent Progress in Obstetrics and Gynecology" before McGill University, Montreal, Canada.

Dr. Walter H. Theobald is the new chairman of the Medical Center Commission, succeeding Dr. Raymond B. Allen, who resigned to become president of the University of Washington.

Dr. Alfred D. Biggs addressed the John W. Cook Parent Teacher Association on January 9th, subject, "Guiding our Children Towards Good Health Habits."

Dr. Rudolph G. Novick addressed the Woman's Club of Dixon on January 11th, speaking on "Mental Hygiene."

Dr. Arthur G. Falls has recently returned from his third tour of Latin America where he visited medical institutions in Cuba, Haiti, the Dominican Republic, Puerto Rico, Curacao, Venezuela, Colombia, Panama and Jamaica.

Dr. Mary G. Schroeder addressed the South Edgebrook Woman's Club on January 13, subject, "Looking Forward at Forty."

Seventeen counties in Illinois voted favorably recently for the inauguration of full time county health units. The seventeen counties include one four-county unit and three bicounty units. The proposition was lost only on Rock Island County. Altogether twenty-two counties have now adopted county health department laws. When organized, two-thirds of the population of the state will be under full time county and municipal health service. The seventeen counties voting recently are Alexander-Pulaski, Effingham, Fulton, Hardin-Pope-Massac-Johnson, Lawrence-Wabash, Lee, Morgan, Peoria, Piatt-Dewitt, Shelby and Will.

Dr. W. W. Bolton addressed the John M. Palmer Parent Teacher Association on January 14th, subject, "Stop Annoying Your Children".

Dr. George E. Wakerlin addressed the Woman's Club of Downers Grove January 15th speaking on "Cancer and Its Control."

Dr. Meyer Solomon spoke on "Mental Health" before the Park Manor Woman's Club, January 21st.

Dr. I. Davidson has been invited to discuss the "Rh Factor" before the Windsor Park Woman's Club on February 4th.

Dr. M. A. Perlstein addressed the National Society for Crippled Children and Adults at their annual convention at the Palmer House on December 11th. Dr. Perlstein also spoke before the New York Society for Crippled Children, the Cerebral Palsy Association of Southern New York in Ithaca, and also before the Bone and Joint Hospital in New York City, between December 16 and 18.

The Chicago Tuberculosis Society elected the following officers recently: Dr. Hugo T. Cutrera, President, Dr. J. L. Marks, Vice-President and Dr. George W. Homes, Secretary-Treasurer.

Dr. J. Roscoe Miller, dean of the medical school of Northwestern University, has announced ten new appointments to the faculty of the school. Dr. Ray S. Snider, appointed associate professor of anatomy, spent 26 months as senior pathologist and biologist with the atom bomb project at Oak Ridge, Tenn. Dr. Jules H. Masserman, assistant professor of nervous and mental diseases, comes to Northwestern University from the University of Chicago, where he was assistant professor of psychiatry and research associate in the Otho Sprague Institute. Dr. John M. Brookhart, appointed assistant professor of neurology, effective January 1, will come to Northwestern from the University of Illinois College of Medicine, where he is assistant professor of physiology. The other medical faculty appointments are: Dr. Earl W. Cauldwell, instructor in anatomy; Dr. Louis Scheman, instructor in bone and joint surgery; Dr. Jesse W. Hofer, instructor in medicine; Dr. Earl H. Merz, instructor in ophthalmology; Dr. Ernest R. Kimball, instructor in pediatrics; Dr. Zelda Ball, research instructor in physiology, and Dr. Ernest B. Bloomenthal, instructor in surgery.

Personal — Dr. Adio A. Freeman, of Chicago, has been named Director of the Mental Hygiene Clinic, Veterans Administration, for the State of Iowa. He is chief psychiatrist for the Clinic.

Dr. Theodore B. Bernstein addressed the Des Moines County Medical Society at Burlington, Iowa, on December 10th, speaking on "Recent Developments in the Diagnosis and Treatment of Allergic Diseases."

At a meeting of the American College of Allergists in San Francisco in June, 1946, Leon Unger, M.D., F.A.C.P., was elected president of the American College of Allergists.

Personal — Dr. Henry S. Swiontek has announced the opening of his office at 6628 W. Cermak Road, Berwyn, Illinois.

Personal — Dr. and Mrs. M. R. Weidner of Dolton celebrated their 60th wedding anniversary on November 30th.

Dr. M. J. Steinberg who during the war was chief of medical service at the Ft. Sheridan station hospital, recently opened an office with Dr. Joseph Berkenbilt at 1707 Roscoe, Chicago.

Personal — Dr. Frank L. Rector, formerly of Evanston, is the Secretary of the Cancer Control Committee for the Michigan State Medical Society. This is the first society to have a full time secretary on cancer control.

Personal — Dr. George E. Poucher, formerly a member of the Chicago Medical Society, is now affiliated with the Allegheny County Medical Society in Pennsylvania.

Dr. W. Walter Sittler has been invited to address the Palos Heights Woman's Club on February 18th, speaking on "Arthritis and Rheumatism."

DEKALB COUNTY

Dr. John Ovitz, Jr., Sycamore, is the new president of the DeKalb County Medical Society and Dr. Grant Suttié, DeKalb, the secretary.

Dr. David J. Davis, recently retired as dean of the University of Illinois College of Medicine, on November 1 was elected chairman of the Municipal Tuberculosis Sanitarium, filling the vacancy that occurred with the resignation of Dr. Frederick Tice more than a year ago. Dr. Earl E. Kleinschmidt, head of the Tuberculosis Institute of Chicago and Cook County, was named secretary. Harry Reynolds was reelected vice president and will continue to serve as business manager.

The Illinois State Department of Public Health and the Universities of Illinois and Northwestern and the state normal schools at Carbondale and DeKalb are cooperating in studies to determine the value of influenza vaccine. Students at the institutes are being offered the vaccinations on a voluntary basis. A comparison of the incidence of the disease in those who accept the vaccination and those who do not will help to establish the effectiveness of the influenza vaccine. In a statement to the press, Dr. Ronald R. Cross, state director of public health, said that, although the department of public health is not able to offer free influenza vaccine to all, many physicians will no doubt wish to administer it to their private patients.

Construction of a thirteen story wing to the Research and Educational Hospitals, University of Illinois College of Medicine, will begin about March 1. Of the total cost of the addition, \$6,300,000, \$2,200,000 is available from funds appropriated for the current (1945-47) biennium. An additional sum of \$4,100,000 is included in the university's total budget request for the 1947-1949 biennium for construction on the Chicago Professional College campus. Hospital bed ca-

capacity will be increased from 503 to 723 by the addition. At present the university's hospital beds total 227 in the general hospital, 120 in the Illinois Surgical Institute for Children (university orthopedic department) and 156 in the Illinois Neuropsychiatric Institute which is owned by the department of public welfare but staffed and operated by the university. The thirteen story addition will connect with the present hospital at six levels on the north side and with the one story physical environment addition at one level on the west side. All three will be joined through an extension of the present tunnel system. Department clinical offices, research laboratories, x-ray and other adjunct services and operating rooms will be located on the second through the fifth floors. Floors 6 through 13 will contain hospital beds. Air conditioning will be installed in one of the hospital bed floors designed for 25 patients. The purpose is to provide special research and therapy under controlled temperatures. Operating rooms, delivery rooms and nurseries will also be air conditioned, and all floors will be so constructed that air conditioning may be installed later. The addition will be located on the west side of Wood Street between Polk and Taylor streets between the present hospital and the Illinois Neuropsychiatric Institute.

Dr. Albert M. Snell, chief of the section on medicine, Mayo Clinic, Rochester, Minn., and professor of medicine in the Mayo Foundation, delivered the annual Stephen Walter Ranson Lecture, sponsored by the Phi Beta Pi Fraternity, at Northwestern University Medical School on Tuesday, December 3. The lecture was presented at Thorne Hall, on the Chicago campus of Northwestern University, at 5 p.m. Dr. Snell's subject was "Recent Advances in the Field of Hepatic and Biliary Disease."

The Graduate School of the University of Illinois has established four research fellowships to be awarded for one year in the fields of medicine, dentistry and pharmacy in Chicago at a stipend of \$1,200 a year (calendar year with one month's vacation). Fellows are eligible for reappointment in competition with the new applicants. Candidates for these fellowships must have completed a training of not less than eight years beyond high school graduation. Candidates should indicate the field of research in which they are interested and submit complete transcripts of their scholastic credits, together with the names of three former science teachers as references. Appointments will be announced January 1 or soon thereafter each year. The fellowship year begins September 1 or July 1. Formal application blanks may be secured from the Secretary of the Committee on Graduate Work in Medicine,

Dentistry and Pharmacy, 1853 West Polk Street, Chicago 12.

Dr. Charles H. Swift, associate professor and secretary of the department of anatomy at the University of Chicago School of Medicine has been retired with emeritus status, it was announced November 26. Dr. Swift, who has reached the university's automatic retirement age, has been associated with the university for the past forty-seven years; he graduated at Rush Medical College in 1910.

The eleventh Christian Fenger Lecture of the Institute of Medicine and the Chicago Pathological Society will be delivered at the Palmer House on Monday evening, January 13, by Dr. Robert A. Moore, Mallinckrodt professor of pathology and acting dean, Washington University School of Medicine, St. Louis, on "Interpretative Morphology."

Dr. Herman Smith has resigned as executive director of Michael Reese Hospital to become a hospital consultant on a full time basis in Chicago. He leaves Michael Reese after twenty-six years' service. Dr. Morris H. Kreeger, assistant director of Mount Sinai Hospital, New York City, from 1940 to 1946, arrived at Michael Reese November 18 to take over the executive directorship of the hospital. Dr. Kreeger graduated at Jefferson Medical College in Philadelphia in 1935 with prizes in surgery, neurology and ophthalmology and was in general practice in Bloomfield, N.J., from 1937 to 1939.

On December 3 the Central Service for the Chronically Ill of the Institute of Medicine of Chicago devoted a special session to a discussion on "What Chicago Is Doing About Chronic Illness." The morning session was devoted to the prevention and control of chronic diseases and the afternoon session to long term care of chronically ill patients.

Dr. Fred L. Adair, emeritus professor of obstetrics and gynecology, University of Chicago, and formerly chief, medical staff, Chicago Lying-in Hospital, has received a grant-in-aid from the U. S. Department of State to enable him to serve as visiting lecturer in obstetrics in Argentina. While in Argentina Dr. Adair will lecture at the universities in Buenos Aires, Cordoba, Santa Fe and La Plata. He has been invited by the Society of Obstetrics and Gynecology of Argentina as a special delegate to the sixth Argentina Congress of Obstetrics and Gynecology.

FORD COUNTY

The town of Kempton held a community dinner in the local high school recently to honor Dr.

William G. Ross on his seventy-seventh birthday. He has practiced in Kempton for forty-three years.

FULTON COUNTY

Dr. E. P. Coleman, Canton, was awarded the Gold Medal and Certificate for Distinguished Service to Medicine given by the Mississippi Valley Medical Society at the society's meeting in Burlington, Iowa, recently.

GREENE COUNTY

At the annual meeting of the Greene County Medical Society held in Roodhouse, Illinois December 13, 1946 the following officers were elected for 1947: President Dr. R. W. Piper, White Hall, Vice President Dr. Earl Walker, Roodhouse, Treas. Dr. W. H. Garrison, White Hall, Censor, Dr. Chas. A. Billings, Hillview.

Dr. Frank A. Morrison, Alton, Illinois, lectured on, "Mal Positions of the Uterus."

IROQUOIS COUNTY

Dr. Stuart D. Roeder, Milford, gave a series of talks on social hygiene at the Milford Grade School in November.

MARION COUNTY

Dr. Claude J. Sanders, Centralia, was elected president of the Marion County Medical Society on November 21st.

The Marion County Medical Society was the first group in Illinois to view the new polio film, "Sister Kenney Concept and Treatment of Poliomyelitis."

MENARD COUNTY

Dr. Irving Newcomer, a practicing physician in Menard County for 50 years, celebrated his 74th birthday on Thanksgiving Day.

UNION COUNTY

Dr. Frank C. Murrah, of Herrin, has been invited to address the Business and Professional Woman's Club of Anna on February 25th. He will discuss the subject of "Cancer."

At a recent meeting of the Southern Illinois Medical Association, Dr. W. I. Lewis of Herrin was elected president, Dr. J. B. Moore, Benton, vice-president, Dr. R. V. Ferrell, Eldorado, second vice-president and Dr. E. H. Edwards, Pinckneyville, secretary-treasurer.

VERMILION COUNTY

Dr. John A. Rogers of the American Cancer Society addressed the Woman's Auxiliary to the Vermilion County Medical Society and the American Association of University Women of Danville on January 7th, discussing "Cancer."

Dr. K. M. Hammond, of Hoopeston, has been elected president of the Vermilion County Medical Society; Dr. A. R. Brandenberger, Danville, vice-president, and Dr. Holland Williamson, Danville, secretary-treasurer.

Dr. James J. Callahan, of Chicago, addressed the Vermilion County Medical Society on January 7th discussing "Common Fractures."

WARREN COUNTY

Dr. Joseph C. Sherrick has opened an office for the practice of medicine in Monmouth. Dr. Sherrick spent a year at the 317th Station Hospital, Wiesbaden and other points in Germany. After his return, he took a three months' post-graduate course at the University of Iowa.

WHITESIDE COUNTY

Dr. I. Vandermyde of Prophetstown, has been elected president of the Whiteside County Medical Society; Dr. R. N. Redmond of Sterling was named vice-president and Dr. G. J. Pohly, Rock Falls, was re-elected secretary-treasurer.

WINNEBAGO COUNTY

Dr. Clara Johns, formerly of Rockford and a graduate of the University of Chicago School of Medicine, is the new health officer for Lee County Health Department with headquarters at Dixon, Illinois.

MARRIAGES

CHARLES RICHARD YODER to Miss Edith King, both of Chicago, September 14.

DEATHS

JOSEPH C. ANDERHUB, Chicago; Ludwig-Maximilian University, Munich, Bavaria, Germany, 1889; St. Louis College of Physicians and Surgeons, 1892. Died at the Little Sisters of the Poor, Aug. 23, aged 83, of generalized arteriosclerosis.

JOHN ASHWORTH, Chicago; Northwestern University Medical School, 1935. Died December 2nd in Belmont Hospital of injuries suffered a few days before. He was 40 years of age.

MARSHALL DAVISON, Chicago; University of Illinois College of Medicine, 1920. Head of University Hospital; chief of surgical department of Cook County Hospital; associate professor of surgery, Northwestern University Medical School; professor of surgery, Cook County Graduate School. Died in his home, Dec. 16, aged 50.

ALEXANDER J. DeGRAND, Chicago; Chicago College of Medicine and Surgery, 1916. Had practiced medicine in Chicago for 30 years. Died November 18th, aged 64.

GEORGE RICHARD HAYS, Marissa; Beaumont Hospital Medical College, St. Louis, Mo., 1896. Had practiced medicine 50 years. Died suddenly after making a professional call, Dec. 7th at the age of 75.

EDWARD W. MUELLER, Chicago; Rush Medical College, 1902. Suffered a fatal heart attack December 8th while playing golf. He had been a physician and surgeon in Chicago since 1904. He was 66 years of age.

PAUL LILJA LANE, Chicago; University of Illinois College of Medicine, 1941; also a graduate in dentistry. Died in Framingham, Mass., July 13, aged 48.

VICTOR D. LESPINASSE, Chicago; Northwestern University Medical School, 1901. Associate professor of genito-urinary surgery at Northwestern University and a former president of the Chicago Urological Society. Was awarded a certificate of honor for his method of blood vessel anastomosis by the A.M.A.; in 1917 he was awarded a silver medal, and in 1920 he received a diploma from the Association for original experimental work on spermatogenesis and sterility. Died Dec. 14th in Wesley Memorial Hospital where he was the staff urologist. He was 68 years of age.

GEORGE J. MUSGRAVE, Chicago; University of Iowa, 1901. Attending otolaryngologist at Mercy Hospital. Took his life in his office, November 28th while despondent over his health. He was 70 years of age.

FREDERICK F. PIERCE, Chicago; National Medical College, 1897. Served on the school board and city council of Earlville, Ill. Died Sept. 27th, aged 85.

EUGENE C. PIETTE, Oak Park; Kharkov State University, 1917. Pathologist and director of laboratories at West Suburban Hospital. Formerly associate pro-

fessor in the University of Illinois School of Medicine. Died December 4th, aged 54.

SAMUEL ARTHUR PURVES, Des Plaines; Bennett College of Eclectic Medicine and Surgery, 1934. Was killed December 11th when his automobile collided with a bus. Had practiced in Des Plaines for 10 years and was a member of the staff of the St. Francis Hospital, Evanston. He was 37.

HELEN MOLNAR-SASKO, Chicago; Chicago College of Medicine and Surgery, 1917. Was Gold Star mother and pioneer woman physician in Chicago. Died recently, aged 71.

LOUIS P. SCHROEDER, Addieville; Hospital College of Medicine, Louisville, 1892. Died Sept. 13, aged 79.

EUGENE A. STACK, Chicago; Loyola University School of Medicine, 1935. Clinical Instructor in pediatrics, Loyola University. Died in an automobile accident, December 2nd, aged 38.

EDWARD P. TROY, Chicago; Northwestern University Medical School, 1914. Superintendent of clinics for the Municipal Tuberculosis Sanitarium. Died of a heart attack, December 11th, aged 58.

CLIFFORD CHARLES WEHN, Rockford; Chicago College of Medicine and Surgery, 1914. Served in the medical corps in World War I. Started his medical practice in Rockford in 1926. Had been in poor health for 3 years. Died at St. Anthony Hospital, Nov. 15th, aged 58.



A.M.A. CENTENNIAL BROADCASTS

On December 7 the American Medical Association, in celebration of its centennial in 1947, presented the first in a series of 26 N.B.C. dramatized broadcasts on the progress of medicine in the United States during the hundred years of the Association's existence.

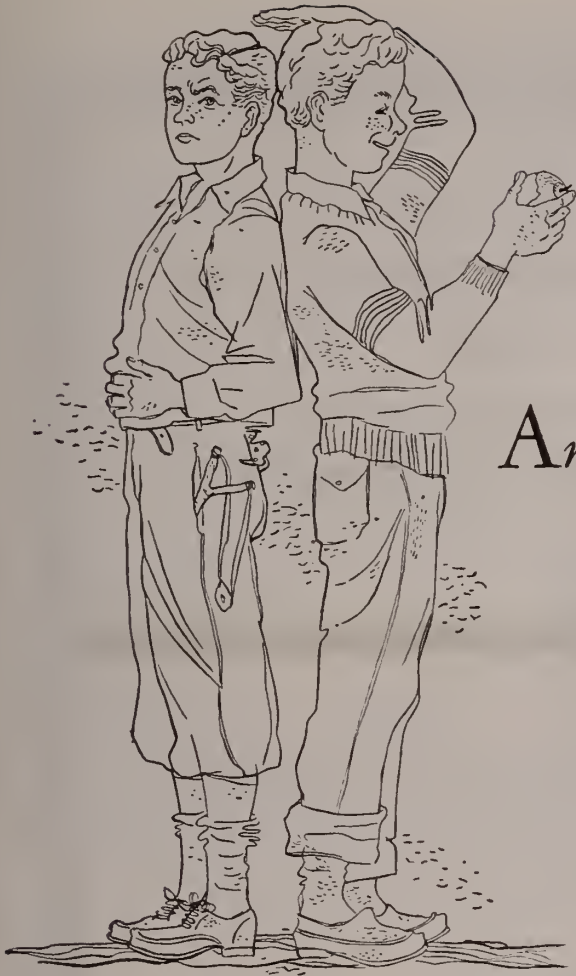
This is the 12th annual series of the A.M.A.-N.B.C. broadcasts. It will be entitled "Doctors — Then and Now" and the theme will be "A Century of Progress by American Medicine."

States with similar history and similar general characteristics will be grouped together so that in

all 25 regions will be represented. One broadcast will be devoted to medical progress in each of these regions, and the 26th and closing week will deal with the 100 years of the American Medical Association from a nationwide standpoint.

Each broadcast will be divided into two parts. The first part will consist of a dramatization dealing with historic physicians and medical events in the region and the second part will feature a speaker representing the medical societies in that region.

(Continued on page 62)



*An answer
that raises a question*

Youngsters can quickly settle the question as to who is the "bigger." The more subtle question, "Am I as 'big' as I ought to be?" is more difficult to answer.

Physicians know that an important factor in optimum growth and health is an adequate diet. To assure adequacy of vitamin intake one or more of the essential vitamins are commonly prescribed.

'Homicebrin' (Homogenized Vitamins A, B₁, B₂, C, and D, Lilly) contains five vitamins known to be most essential for optimum growth and development. Up to two times the optimal daily requirements are provided in approximately one teaspoonful (5 cc.). 'Homicebrin' is pleasant to the taste and is miscible with milk, water, or orange juice. It is available in bottles of 60 cc. and 120 cc. at retail drug stores everywhere.

Sinal drainage"... can be achieved by the introduction of nontoxic, volatile vasoconstrictors, such as ... amphetamine [Benzedrine]."

Russell, H.G.B., abstracted, Proc. Roy. Soc. Med. 36:401.



To relieve the discomfort of sinusitis

The vasoconstrictive vapor of Benzedrine Inhaler, N.N.R., diffuses evenly throughout the upper respiratory tract, opening sinal ostia and ducts which are frequently inaccessible to liquid vasoconstrictors. The sinuses drain. Headache, pressure pain, "stiffness" and other unpleasant sinusitis symptoms are relieved.

Each Benzedrine Inhaler is packed with racemic amphetamine, S. K. F., 250 mg.; menthol, 12.5 mg.; and aromatics.



Smith, Kline & French Laboratories, Philadelphia, Pa.

Benzedrine Inhaler
a better means of nasal medication



Big Game Hunters

• He hunts the "biggest game" of all... the microscopic and mysterious enemies of mankind.

He hunts not with a rifle, but with a microscope.

He is the doctor out to effect a cure

by finding the cause—and combating it.

No place in the world, not even the remotest jungle, is too far, too dangerous, or too difficult for him to penetrate when the needs of medical science say, "This must be done."

According to a
recent independent
nationwide survey:
**More Doctors
Smoke Camels**
than any other cigarette



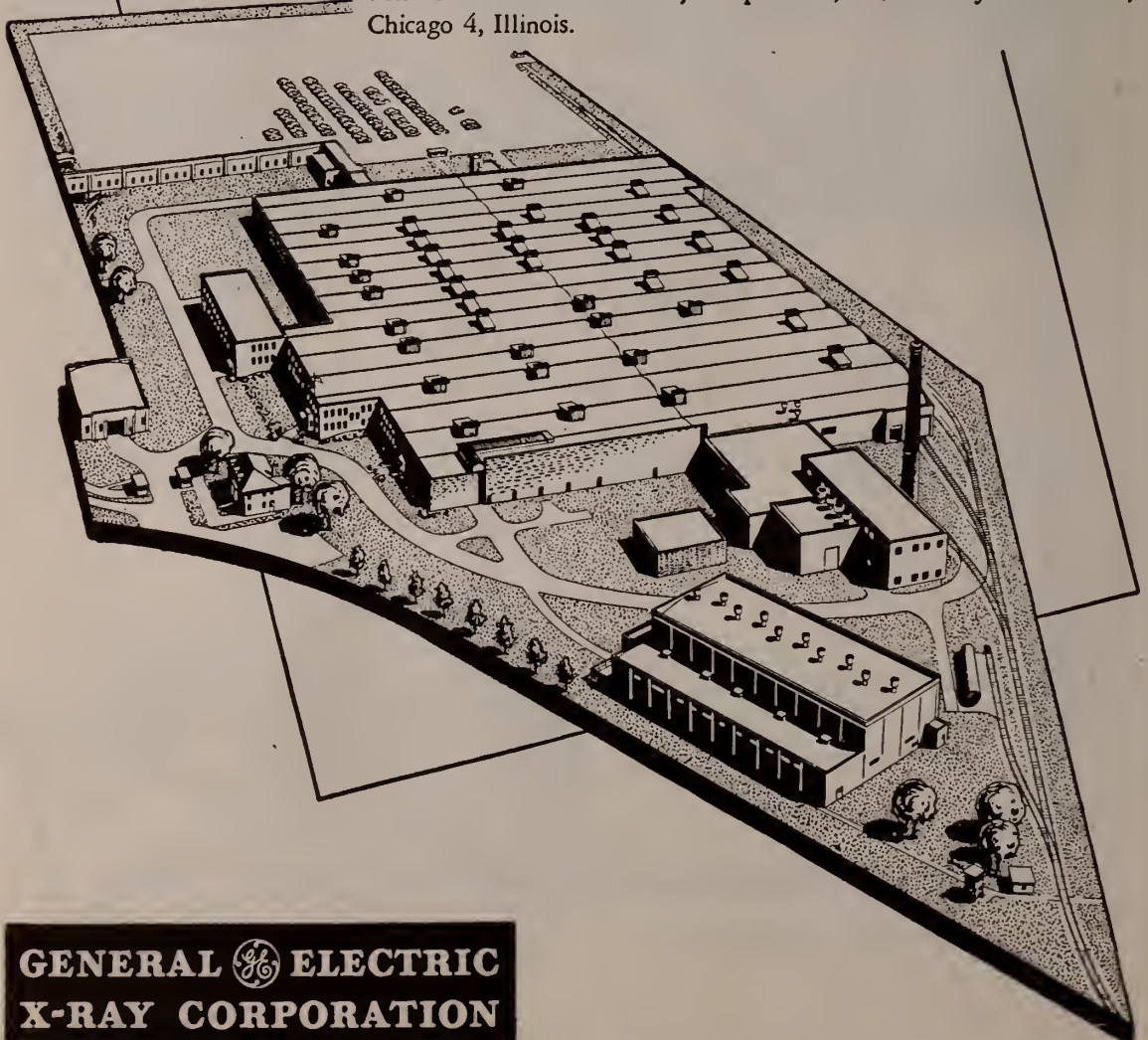
43-ACRE REMEDY FOR GROWING PAINS

We think it's a healthy sign when a 51-year-old organization has growing pains. And our remedy is the purchase of a new 43-acre plant located in Milwaukee. It includes adequate provision for expanding production and accelerating engineering research and development of radiographic and therapeutic apparatus.

Important to you is the fact that the move from Chicago to Milwaukee will mean no interruption of the production schedules established to meet present delivery promises.

Our Chicago plant will continue to run at full capacity. The Milwaukee plant, already in operation, will gradually assume an increasing share of the manufacturing load.

Here, in this modern manufacturing facility, is concrete evidence of our plans to meet present and future demands of your profession. And your demands will be met without sacrificing the high quality and efficiency that have always characterized the products of this organization. General Electric X-Ray Corporation, 175 West Jackson Blvd., Chicago 4, Illinois.



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X-RAY CORPORATION**



“Footprints on the sands
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of a series honoring the contributions of eminent personalities of medicine and pharmacy.

JOHN CHALMERS DACOSTA — 1863-1933

Surgeon and Teacher

Associated with his alma mater, Jefferson Medical College, for forty years, John Chalmers DaCosta became the first Samuel D. Gross Professor of Surgery. He was on the staff of the Philadelphia General Hospital and served for many years as consulting surgeon of that famous institution.

He distinguished himself as editor of the American edition of Gray's "Anatomy" and as author of the widely esteemed "Manual of Surgery". Because of his knowledge and genial wit, visiting physicians and surgeons seldom missed an opportunity to attend his clinics, and his surgical teaching has permeated every portion of the civilized world.

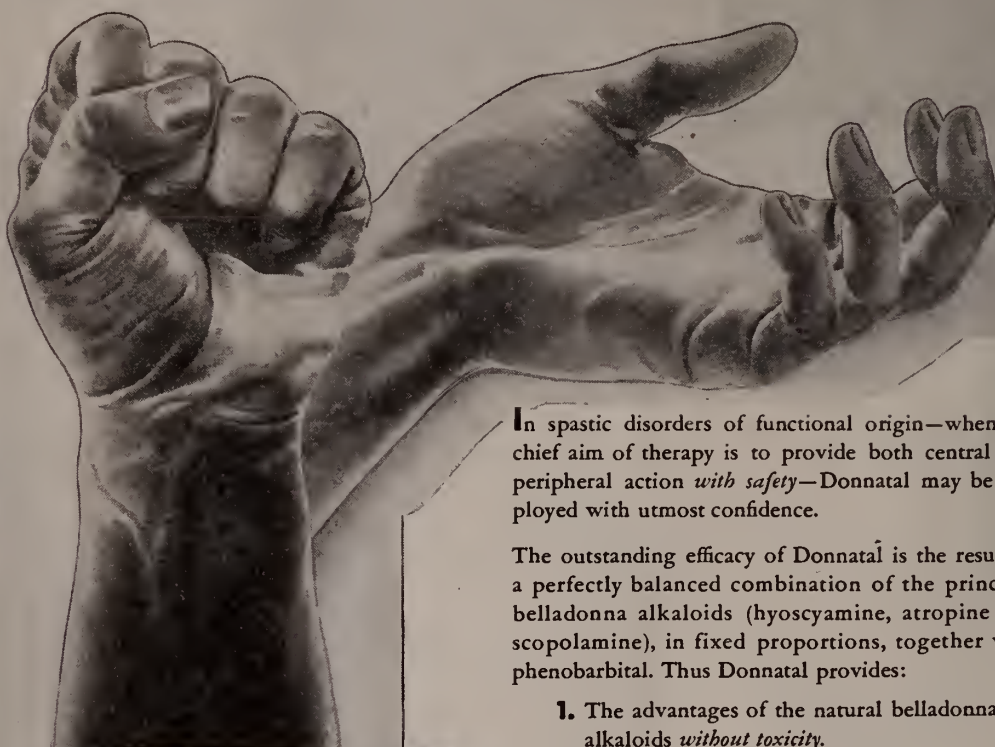


In recognition of our responsibility to further the progress of medicine and pharmacy we pledge adherence to a research program designed to develop products which will meet the most exacting requirements for purity, uniformity, and therapeutic effectiveness.

The Harrower Laboratory, Inc.

GLENDAL 5, CALIFORNIA

Donnatal RELIEVES SPASM WITH TENSION



AVAILABLE: In bottles of 100 tablets.

FORMULA: Each tablet contains belladonna alkaloids (hyoscyamine, atropine and scopolamine) equivalent to approximately 5 min. tr. belladonna, plus $\frac{1}{4}$ gr. phenobarbital.



In spastic disorders of functional origin—when the chief aim of therapy is to provide both central and peripheral action *with safety*—Donnatal may be employed with utmost confidence.

The outstanding efficacy of Donnatal is the result of a perfectly balanced combination of the principal belladonna alkaloids (hyoscyamine, atropine and scopolamine), in fixed proportions, together with phenobarbital. Thus Donnatal provides:

1. The advantages of the natural belladonna alkaloids *without toxicity*.
2. Effective *non-narcotic* sedation.
3. Marked pharmacologic potency with small dosage at *notably less cost*.

The synergetic implementation of Donnatal makes it an ideal antispasmodic and sedative in a wide range of spastic disorders—such as spasm incident to gastric and duodenal ulcers, pylorospasm, spastic constipation, urogenital spasm, cardiospasm, autonomic nervous disturbances, respiratory disturbances, Parkinsonism, vomiting of pregnancy, and other spastic manifestations.

FOR RELIEF OF SMOOTH MUSCLE SPASM

R_x

DONNATAL 'Robins'

A. H. ROBINS COMPANY, INC. • RICHMOND 19, VIRGINIA

GENTLE PRESSURE

of LIQUID BULK

relieves constipation

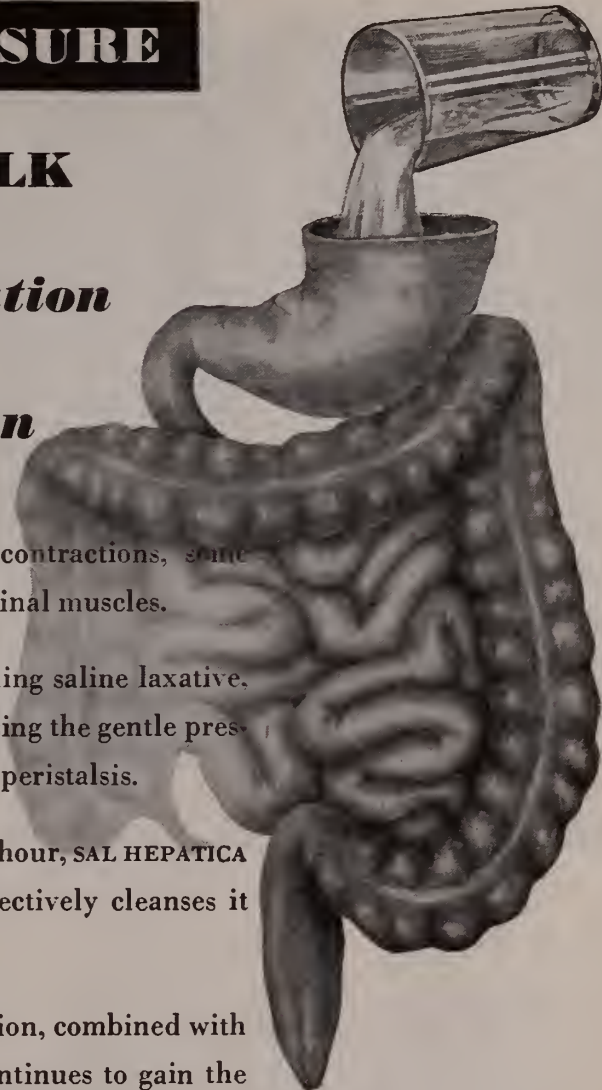
without irritation

In order to reinforce peristaltic contractions, some laxatives act by irritating the intestinal muscles.

In contrast, SAL HEPATICA, a sparkling saline laxative, follows nature's own methods by using the gentle pressure of "liquid bulk" to stimulate peristalsis.

Acting promptly, usually within an hour, SAL HEPATICA flushes the intestinal tract and effectively cleanses it of waste.

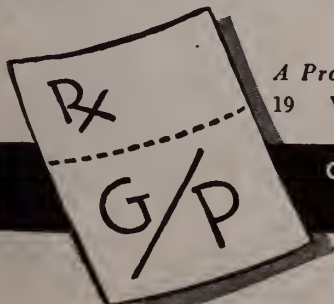
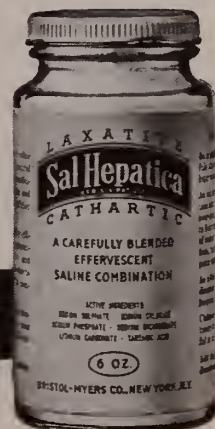
Because of this quick yet gentle action, combined with its pleasant taste, SAL HEPATICA continues to gain the ever-increasing confidence of your profession.



SAL HEPATICA

A Product of BRISTOL-MYERS COMPANY
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**GENTLE PRESSURE FOR GENTLE
YET THOROUGH LAXATION**





Announcing Crystalline Penicillin G Sodium Merck

- ★ No refrigeration required for dry form.
- ★ Therapeutically inert materials which may act as allergens have been virtually eliminated.
- ★ Minimum irritation on injection as a result of removal of therapeutically inert materials.
- ★ Meets exacting Government specifications for Crystalline Penicillin G.
- ★ Penicillin G has been proved to be a highly effective therapeutic agent.



CRYSTALLINE PENICILLIN G SODIUM MERCK

MERCK & CO., Inc.

RAHWAY, N. J.

Manufacturing Chemists



IN THE FREQUENTLY OVERLOOKED

Human Phase OF NUTRITION

HUMAN nutrition presents many phases not encountered in experimental studies. The laboratory animal, driven by hunger, will eat and thrive on any food substance that is adequately nutrient. Taste and variety and meal satisfaction are of little moment in such nutritional studies.

In human nutrition, the joy of eating, and especially the satisfaction of having eaten well, play an important role. Frequently, though physiologic hunger has not come about, it is the pleasant memory of the last meal that engenders the appetite.

To add satiety value to the meal, candy may well serve as its last course. Even an otherwise drab meal gains much when topped off by a piece or two of candy.

Confections in the manufacture of which milk, butter, eggs, fruits, and nuts or peanuts are used, are particularly suited for this purpose. This is true because of their universal taste appeal, but also because they contribute small amounts of many essential nutrients.

THE NUTRITIONAL PLATFORM OF CANDY

1. Candies in general supply high caloric value in small bulk.
2. Sugar supplied by candy requires little digestive effort to yield available energy.
3. Those candies, in the manufacture of which milk, butter, eggs, fruits, nuts, or peanuts are used, to this extent also—
 - (a) provide biologically adequate proteins and fats rich in the unsaturated fatty acids;
 - (b) present appreciable amounts of the important minerals calcium, phosphorus, and iron;
 - (c) contribute the niacin, and the small amounts of thiamine and riboflavin, contained in these ingredients.

4. Candies are of high satiety value; eaten after meals, they contribute to the sense of satisfaction and well-being a meal should bring; eaten in moderation between meals, they stave off hunger.
5. Candy is more than a mere source of nutriment—it is a morale builder, a contribution to the joy of living.
6. Candy is unique among all foods in that it shows relatively less tendency to undergo spoilage, chemical or bacterial.

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American Medical Association**

COUNCIL ON CANDY OF THE

National Confectioners'
Association

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P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.
Peoria, Ill.

Recently a love loarn Sammy journeyed into the deep South with the following experiences:

Savannah

When he landed in Savannah
He gave forth a loud hozanna
As he spied a blond named Hannah;
And she looked like a heavenly manna
In a colorful bandanna.
So he tarried in Savannah.
But he found this big diana
Acted like a wild gitana
And was just a green banana.
So he hastened from Savannah.

Miami

So he want down to Miami,
Found the weather cold and clammy,
And the maids were so flim-flammy
That they made him quite jim-jammy.
So he wildly shouted, "Damme,
This may be all right for mammy,
But it's not the place for Sammy"
And he promptly left Miami.

Fort Lauderdale

He next approached Fort Lauderdale
Which has no hills and not a vale
But sometimes has a tropic gale.
Here folks ars husky, none are frail,
They all are tanned and none are pale.
He met a classy girl named Grail
She seemed a nifty nightingale
With joy unbounded they set sail
And gaily walked a lover's trail
With visions of a bridal veil
And happiness that loves entail.
Then came her folks and all went stale,
Her father made him quake and quail,
Her mother's shape, a cotton bale,
Her siblings all should be in jail.
He tried his best to no avail,
He then knew what it is to fail,
So uttering a dismal wail
He sadly left Fort Lauderdale.

St. Petersburg

To St. Petersburg he wandered
But he felt his time was squandered
For he did not see a female who was under sixty-five.
As he looked at long green benches
His poor mind got many wrenches,
As he viewed the mass of sitters who seemed only
half alive.

He encountered lame and halt and blind,
And the folks he saw brought to his mind
Only thoughts of county poor farms or an aged
people's home.
It was dismal and depressing,
Was pathetic and distressing.
So he left the shuffle boards and benches farther on
to roam.

Tallahassee

In the town of Tallahassee
He spied a nifty lassie
Tripping o'er a lawn so grassy
And she seemed so very classy
That he stayed in Tallahassee.

When he met this little lassie
Both blue eyes were cold and glassy
And her manner bold and brassy
And her speech so coarse and sassy
He abandoned Tallahassee.

Biloxi

He next wandered to Biloxi
Where he met a girl named Roxy
So filled up with heterodoxy
That he thought he'd be more foxy
If he saw this dame by proxy
So walked he out on Biloxi.

Pass Christian

So he took himself to Pass Christian
And is now an ardent Gulf Coast fan.
He acquired a tan
Like a Mexican
In a beach chair made of soft rattan.

On the Spanish Trail at Pass Christian
There he met a maid who was called Susanne;
And they soon began
To evolve their plan
In the usual way of a maid and man.

O, his life is leisure with sweet Susanne,
For they loaf where erstwhile they always ran,
And they'll spend life's span
And will raise their clan
In this lovely spot called Pass Christian.



WHEN SUPPLEMENTARY PROTEIN IS INDICATED IN

Reducing Diets

KNOX GELATINE is especially valuable when you must plan reducing diets containing supplementary protein.

Knox is pure, unflavored gelatine that is all protein, no sugar...decidedly different from factory-flavored gelatine dessert powders which are 85% sugar.

To all reducing diets, Knox Gelatine salads and desserts can add variety and interest. Many of these dishes contain high-residue, low-calorie foods, which are especially

helpful in staving off the pangs of hunger.

Drinking Knox in water or in diluted fruit juices, between meals is another good, low-calorie way to combat hunger and make dieting easier.

IF YOU WISH FREE DIETS AND RECIPES, won't you send a request to Knox Gelatine, Johnstown, N. Y.? We'll be glad to send you free a practical and authoritative booklet containing tables of food values, diet list, sample menus, and delicious low-calorie recipes.

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PLAIN, UNFLAVORED GELATINE...ALL PROTEIN, NO SUGAR



Illinois State Medical Society

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SECTION ON PATHOLOGY
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COUNTY SOCIETIES

This list is corrected in accordance with the best information obtainable at the date of going to press. County Secretaries are requested to notify The Journal of any changes or errors.

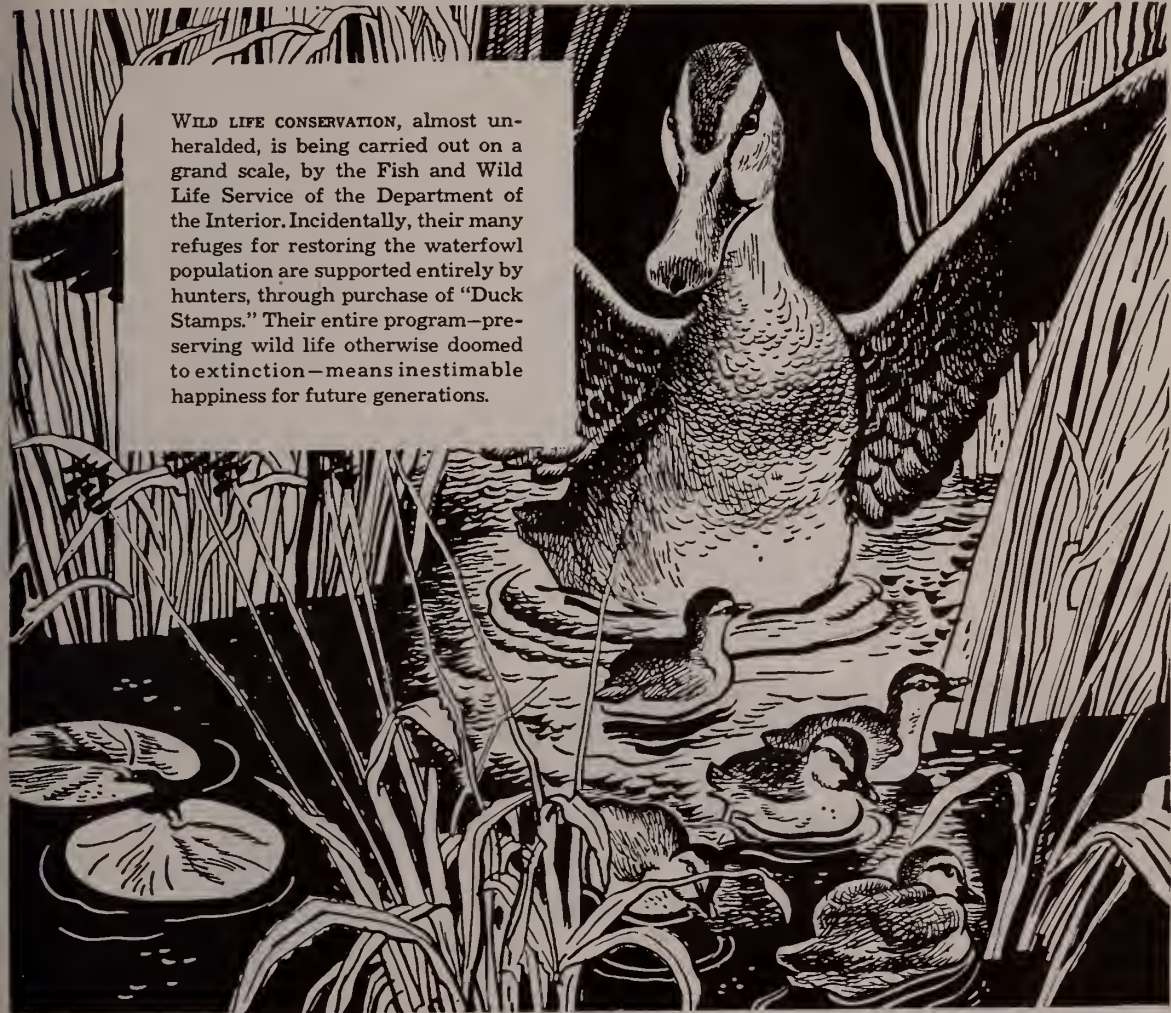
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Jasper	William E. Franke, Newton	C. O. Absher, Newton.
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Jersey	Hugh R. Bohannon, Jerseyville	Robert G. Mindrup, Jerseyville.
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McDonough	W. C. Carnahan, Macomb	W. M. Hartman, Macomb.
McHenry	A. V. Lindberg, Crystal Lake	E. E. Kunde, Marengo.
McLean	E. M. Stevenson, Bloomington	W. H. Atkinson, Bloomington.
Macon	S. G. Smith, Decatur	Maurice D. Murfin, Decatur.
Macoupin	George Hess, Bunker Hill	Joseph J. Grandone, Gillespie.

*Deceased.

(Continued on page 60)

Toward a Better World

WILD LIFE CONSERVATION, almost unheralded, is being carried out on a grand scale, by the Fish and Wild Life Service of the Department of the Interior. Incidentally, their many refuges for restoring the waterfowl population are supported entirely by hunters, through purchase of "Duck Stamps." Their entire program—preserving wild life otherwise doomed to extinction—means inestimable happiness for future generations.

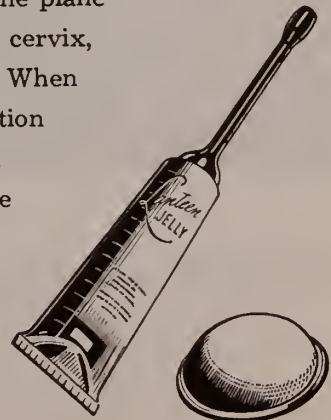


Progress is also taking place sociologically... promotion of Lanteen products by Lanteen Medical Laboratories. These products are leaders in their field, and produced under rigid scientific standards.

Simplicity in properly placing the Lanteen Flat Spring Diaphragm makes it ideal for continued use. It is collapsible in one plane only. Therefore, if the entering rim lodges against the cervix, the trailing rim cannot be forced into the pubic arch. When largest possible comfortable size is fitted, proper position is assured. Available only through ethical sources, on physician's prescription or recommendation. Complete package available to physicians upon request.

Lanteen

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Massac	Stephen P. Ward, Metropolis	G. F. Cummins, Metropolis.
Menard	T. V. Plews, Petersburg	H. P. Moulton, Petersburg.
Mercer	L. E. Robinson, Aledo	V. A. McClanahan, Aledo.
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Ogle	A. R. Bogue, Rochelle	L. Warmolts, Rochelle.
Peoria	C. W. Margaret, Peoria	W. E. Owen, Peoria.
Perry	B. I. Hall, DuQuoin	H. I. Stevens, Tamaroa.
Piatt	A. D. Furry, Monticello	W. N. Sievers, White Heath.
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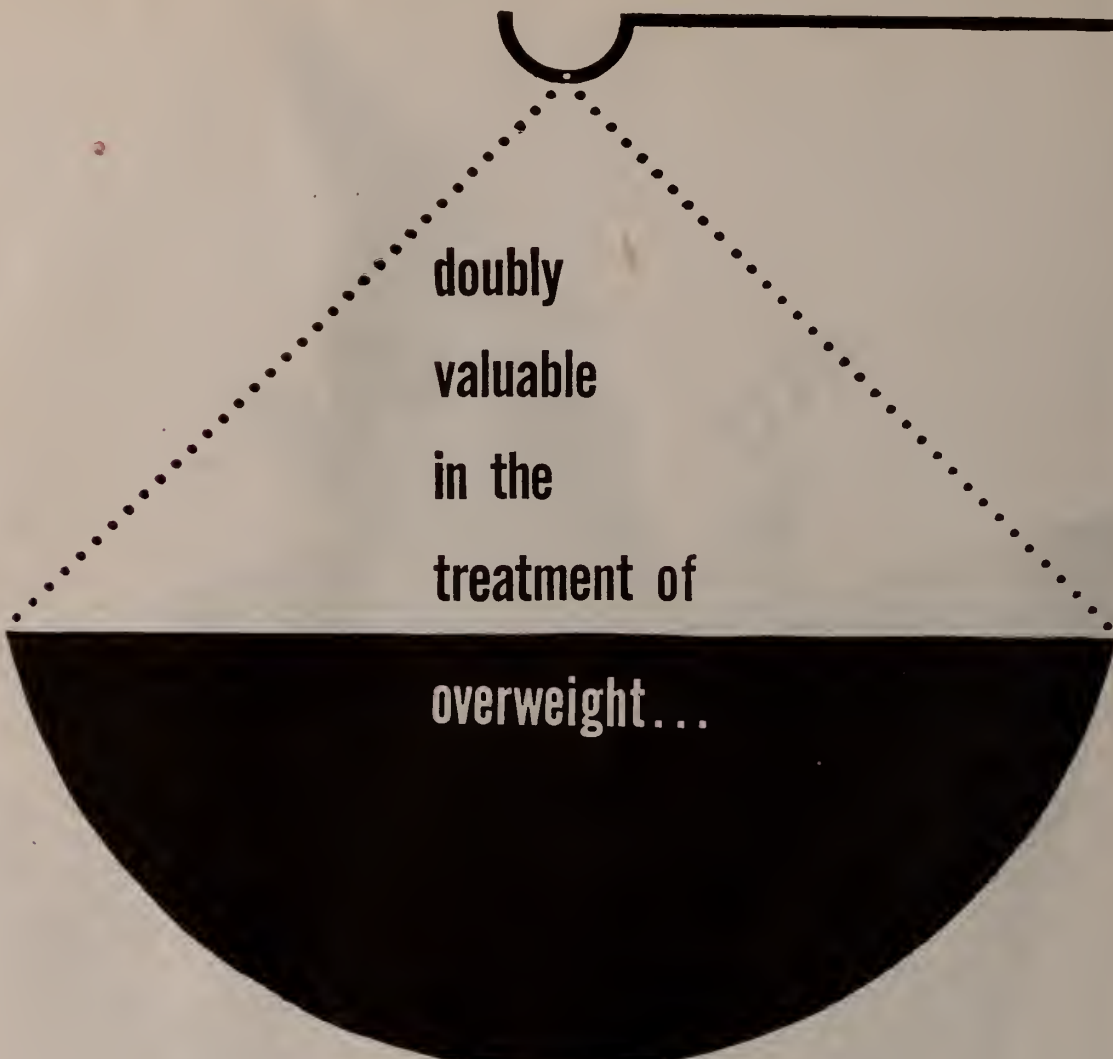
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*Canad. M. A. J. 54:26 (Jan.) 1946



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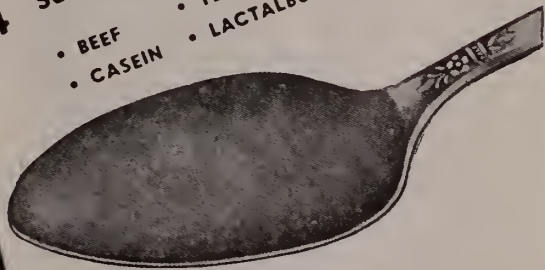
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Book Reviews

ANESTHESIA IN GENERAL PRACTICE. By Stuart C. Cullen, M.D., Head of Division of Anesthesiology, Department of Surgery, State University of Iowa Hospitals; Associate Professor of Surgery (Anesthesiology), State University of Iowa College of Medicine. The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago. 1946. Price \$3.50.

This is another of the series of General Practice Manuals published by the Year Book Publishers, intended not for the anesthetist or to give the last work on any subject in the art of anesthesia, but to give to the practitioner of medicine much information of value to him in reviewing the subject of anesthesia and determining the type of anesthetic which may be preferable in any given emergency.

The bond between the surgeon and the anesthetist should be a close one and these men working jointly during the surgical procedure have a definite responsibility requiring the proper type of teamwork. There have been many recent developments in the field of anesthesiology which are incorporated in this manual; likewise the fundamentals of such great importance are properly discussed. The writer, occupying an unusual role as an outstanding authority in anesthesia as well as Associate Professor of Surgery at the University of Iowa College of Medicine, is well qualified to discuss his subjects in this dual role.

The first chapter on preanesthetic medication is of much interest to the reader and will give information desired frequently in the work of the average practitioner, and emergency surgeon. The author discusses inhalation anesthesia, listing the anesthetics more often used. Reference is made in detail to the intravenous anesthetics used so frequently today, with soluble barbiturates, and the statement is made that this cannot be considered to be a true analgesic procedure because the barbiturates have minimal analgesic properties. Supplementary inhalation anesthesia for muscle relaxation in intravenous analgesia is also discussed in a manner to make it well worth while for the time of the reader.

Spinal analgesia likewise receives much consideration in the book, with the several cocain derivatives, and the

one of choice properly mentioned in this chapter. Limitations, dangers, and methods of use are carefully described. The use of curare and its ability to produce complete muscle relaxation, and an adjunct to inhalation anesthesia, is of much interest. Curare is considered a safe and useful drug when used in this way, even though curare has no actual analgesic property even when given in amounts which give the desired muscle relaxation, and it is more often used, the author states, with cyclopropane.

Technics in inhalation anesthesia are given in a separate chapter which will be of interest to the average reader, to refresh his memory on an important subject.

The book is well written, well arranged, and should be of much interest to any practitioner of medicine who must do some emergency surgery, or be called upon occasionally to administer anesthesia for some colleague.

THE PRINCIPLES OF NEUROLOGICAL SURGERY: By Loyal Davis, M.S., M.D., Ph.D., D.Sc., (Hon.), Professor of Surgery and Chairman of the Division of Surgery, Northwestern University Medical School, Chicago. Third Edition, Thoroughly Revised With 192 Engravings, Containing 348 Illustrations and 5 Plates, 4 in color. Lea & Febiger, Philadelphia, 1946. Price \$7.50.

This is the third edition of this book and it has been thoroughly revised. The experience of the author in doing neurosurgical work during the late war in the E.T.O. and his association with many other specialists in this field of medicine have been of much value in the preparation of the book and no doubt have been a major factor in its revision.

It is the desire of the author to give students and physicians information concerning the accomplishments in neurosurgery which will enable them to give better neurosurgical care under the many conditions found in this field. Factors involved in making the neurological diagnosis are presented in the first chapter, and because of the difficulty most general practitioners ex-

(Continued on page 60)

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BOOK REVIEWS (Continued)

perience in making a neurological diagnosis, the basic factors involved are presented in detail.

Traumatic injuries to cerebrospinal structure are likewise considered in much detail, as are the tumors found in the system, infections and abscesses occasionally encountered. Spinal cord injuries with and without paralysis are discussed, and as would be expected in this type book for students and physicians in general practice, herniation of the intervertebral disc is presented.

Treatment is merely referred to, and no technique is presented in the book as it is primarily intended to give the principles of neurological surgery and to enable the reader to make the accurate diagnosis. The chapter on injuries of the peripheral nerves is most interesting and well worth the price of the book. Even though in civilian life these cases are seen infrequently, it is important that the physician recognize injuries to the peripheral nerves so that proper management may be instituted as quickly as possible.

Seen most often in lacerated wounds of the upper extremity, in automobile or farm injuries, with or without fracture, much depends on the early recognition of the nerve injury to get the most satisfactory results. Fractures and dislocations occasionally cause nerve injury and great care must be used in their management. The three major nerves in the arm must be kept in mind — median, ulnar, and radial — as they are the ones most often damaged in this type injury. A careful examination, and not merely the presence or absence of wrist drop, loss of motion in the fingers, etc., for one or two of these nerves may be severed at the wrist without these findings.

Severed nerves should be repaired as soon as possible after the injury to give the maximum relief. This must be kept in mind constantly when injuries are seen. End to end apposition usually with the finest silk after the area is thoroughly cleansed is the operative procedure of choice, and carefully applied physical therapy is advisable and should be done by one thoroughly trained in this procedure.

The book, as was previously stated, was written for the student and the physician in practice, and is not intended for the specialist. Anyone reading this book will be well repaid for the time consumed. He will acquire much information which he will recall when neurological injuries, infections or lesions are under consideration. The volume should be in the hands of practitioners of medicine everywhere and will be used frequently by the average owner of the book.

THE PHYSIOLOGICAL BASIS OF MEDICAL PRACTICE; A University of Toronto Text in Applied Physiology; By Charles Herbert Best, C.B.E., M.A., M.D., D.Sc. (Lond.), F.R.S., F.R.C.P. (Canada), Professor and Head of Department of Physiology; Director of the Banting-Best Department of Medical Research, University of Toronto, and Normal Burke Taylor, V.D., M.D., F.R.S. (Canada), F.R.C.S. (Edin.), F.R.C.P. (Canada), M.R.C.S. (Eng.), L.R.C.P. (Lond.), Pro-

fessor of Physiology, University of Toronto. Fourth Edition. The Williams & Wilkins Company, Baltimore, 1945. Price \$10.00.

The first edition of this popular book appeared in 1937; this is the fourth edition in only eight years. Then, in all, there have been 14 printings since 1937, including one in Spanish and two in Portuguese. The importance of physiologic principles in the treatment of diseases is the basis for this unusual book, and it endeavors to coordinate clinical and laboratory findings, giving the physician the best opportunity of attaining the desired results in this endeavor.

The reference value of this edition has been improved through the use of a double column format which reduces the bulk and the time spent looking up material hurriedly. The authors have covered the generally known principles of physiology well in regard to the various structures and functions of the human body. They have presented this information in such a way as to make it of great advantage and interest to the clinician, and more particularly, perhaps, to the physician in general practice who must have ready reference works to consult at frequent intervals.

It is quite obvious from the vast amount of information contained in this well illustrated book that it will be used more frequently when the owner is more thoroughly cognizant of its contents. There are nearly 500 illustrations in the book, and with more than 1150 pages, the double column format, and the ready reference index it will be comparatively easy for the average reader to find the desired information quite readily.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

MONGOLISM AND CRETINISM: A Study of the Clinical Manifestations and the General Pathology of Pituitary and Thyroid Deficiency; By Clemens E. Brenda, M.D., Director Wallace Research Laboratory for the Study of Mental Deficiency, Wrentham, Mass. Instructor in Neuropathology, Harvard Medical School, Assistant in Psychiatry, Massachusetts General Hospital, etc., Grune & Stratton, New York, 1946. Price \$6.50.

PROBLEMS IN ABNORMAL BEHAVIOR: By Nathaniel Thornton. The Blakiston Company, Philadelphia and Toronto, 1946. Price \$2.00.

INTRACRANIAL COMPLICATIONS OF EAR, NOSE AND THROAT INFECTIONS: By Hans Brunner, M.D., Associate Professor of Otolaryngology, University of Illinois College of Medicine, Chicago. The Year



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BOOKS RECEIVED (Continued)

Book Publishers, Inc., 304 South Dearborn Street, Chicago. 1946. Price \$6.75.

MEDICAL RESEARCH, A SYMPOSIUM: Edited by Austin Smith, M.D., 17 illustrations, including 10 Subjects in Color. J. B. Lippincott Company, Philadelphia and London, 1946. Price \$5.00.

EYE MANIFESTATIONS OF INTERNAL DISEASE: By I. S. Tassman, M.D., Associate Professor of Ophthalmology, Graduate School of Medicine, University of Pennsylvania, Philadelphia; Attending Surgeon, Wills Diplomate American Board of Surgery, etc., 244 including 24 in Color. Second Edition. St. Louis, The C. V. Mosby Company, 1946. Price \$10.00.

URGENT SURGERY: (Volume I) Edited by Julius L. Spivack, M.D., LL.D., Associate Professor of Surgery, University of Illinois College of Medicine; Diplomate American Board of Surgery, etc., 244 Figures having 572 Illustrations, 14 Illustrations in Color. Charles C. Thomas, Publishers, Springfield, Illinois. 1946. Price \$10.00.

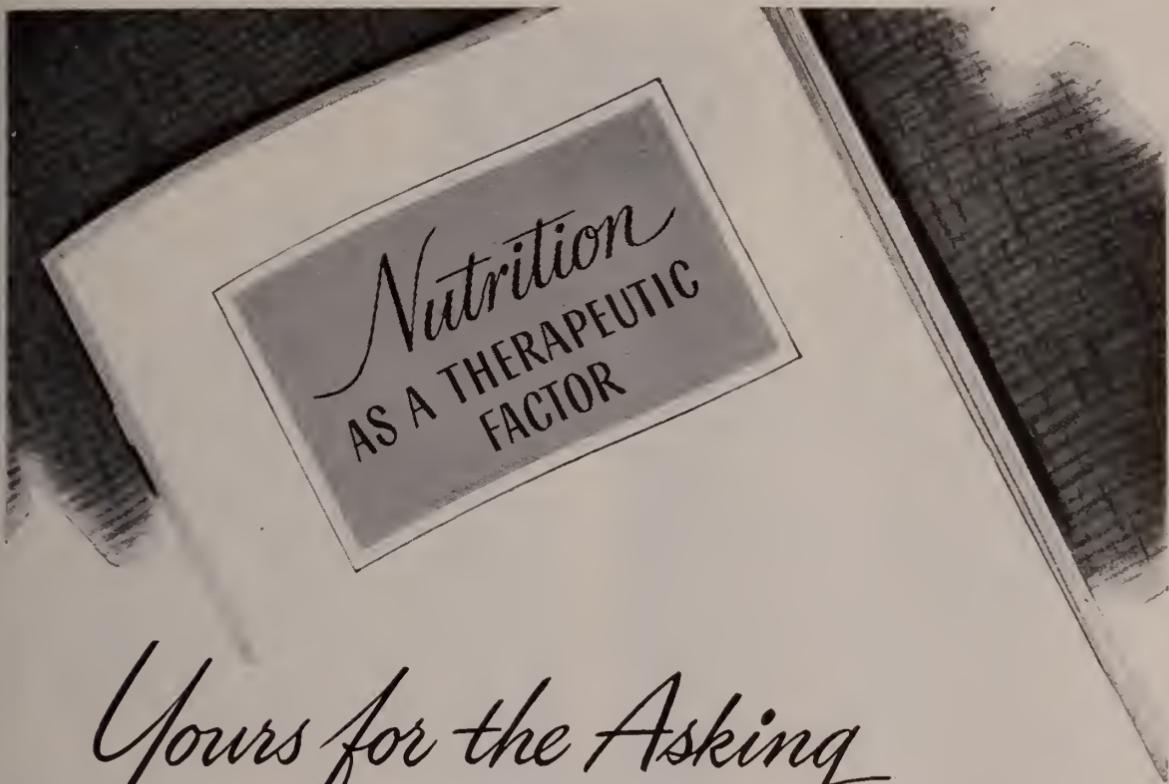
THE CHALLENGE OF POLIO: The Crusade Against Infantile Paralysis; By Roland H. Berg, Introduction by Basil O'Connor, President, The National Foundation for Infantile Paralysis, Inc., The Dial Press, New York, 1946. Price \$2.50.

PSYCHOBIOLOGIC FOUNDATIONS IN DENTISTRY: By Edward J. Ryan, B.S., D.D.S., Editor, Oral Hygiene and The Dental Digest; Past President of the Chicago Dental Society. Springfield, Illinois, Charles C. Thomas, Publisher, 1946. Price \$3.00.

MEDICAL USES OF SOAP. A Symposium. Rudolph L. Baer, M.D., Irvin H. Blank, Ph.D., Theodore Cornbleet, M.D., Morris Fishbein, M.D., G. Thomas Halberstadt, B.S. Ch.E., Lester Hollander, M.D., Edwin P. Jordan, M.D., Daniel J. Kooyman, Ph.D., C. Guy Lane, M.D., Carey McCord, M.D., Marion B. Sulzberger, M.D. 41 Illustrations. Philadelphia and London, J. B. Lippincott Company, 1946. Price \$3.00.

General hospitals could materially assist in the campaign for the further reduction and possibly the eradication of pulmonary tuberculosis by providing routine radiological examinations of the chests of all patients upon admission. New techniques in this connection have materially reduced the costs of such examinations. As a routine procedure, chest filming has been shown to be of greater value in disclosing abnormal conditions than is true of many other routine diagnostic procedures now generally practiced, such as urinalyses, blood counts and serological examinations. Hospital Survey News Letter, Feb. 1946.

Legislation to abolish the use of the "means test" as a basis for public treatment of active tuberculosis has been passed in Illinois, Kansas, Michigan, New York and Wisconsin. Once such laws are on the books, local acceptance and enforcement are essential. Holland Hudson, Rehab. Service, Nat. TB Assn.



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Physical Medicine Abstracts

John S. Coulter, M.D.

EPILATION BY ELECTRODESICCATION OF HAIRS OF THE SCALP INFECTED BY FUNGI

Maurice J. Costello, M.D., New York
IN ARCHIVES OF DERMATOLOGY AND
SYPHILOLOGY, 54:2:210

August 1946

Dermatologists have had the experience of finding it difficult to rid the scalp of the few remaining hairs infected by fungi after epilation by roentgen rays. Great difficulty is encountered in removing these infected hairs by manual epilation with tweezers because it is often impossible to grasp the hair which has broken off near or at the surface of the scalp or because it readily breaks under traction when held between the blades of the epilating forceps.

During the past three years, I have overcome the difficulty in epilation by inserting the fine needle of the short wave high frequency current into the hair follicle alongside the infected hair. When the current is turned on, as the needle is withdrawn the infected hair is oftentimes attached to it. This operation should be performed in a dark room with the aid of the Wood fluorescent light. Complete destruction of the hair follicle does not always occur, and a normal healthy hair may later grow from the follicle.

STABILIZING THE KNEE JOINT THROUGH THIGH MUSCLE DEVELOPMENT

Fourth Paper of a Series by Henry Funk, B.A.,
M.D., Ch.M.

Demonstrator in Orthopaedics, University of
Manitoba, Orthopaedic Consultant in Ninette and
St. Boniface Sanatoria
In MANITOBA MEDICAL REVIEW, 26:7:403

July 1946

Inasmuch as the first line of defence of a joint is its muscles, and the second line its ligaments, it immediately becomes apparent that the integrity of a joint is dependent primarily on the muscles which act upon it, with the ligaments coming into play mainly when the muscles are inactive.

This premise conveys numerous implications and it is quite evident that if the muscles acting on the knee joint become weakened as a result of injury, disuse or disease, the stability of the joint will be impaired. If, for example, the lower limb is encased in a plastic cast to immobilize a fracture, and the thigh muscles are not used actively, then weakness ensues. Removal of the cast after a period of weeks or months, will demonstrate marked impairment of function of the knee joint. This is particularly due to the prolonged immobilization, but chiefly to the thigh muscle weakness. Even non-inclusion of the knee joint does not completely guard against such weakness, although impairment of function will be less if the cast has been a walking cast permitting some active use of the muscles.

Activating and redeveloping the strength of the thigh muscle is of wide application. The contraindications apply wherever rest of these muscles is imperative, e.g., the earlier stages of union of a fracture of the femur, repair of these muscles, fractures about the knee joint where active contraction will disturb the alignment, inflammatory processes, etc. In addition to pre- and post-operative indications, osteo-arthritic knee joints are greatly stabilized and often rendered

(Continued on page 66)



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PHYSICAL MEDICINE (Continued)

painless by redeveloping or overdeveloping thigh muscle strength and the necessity for wearing a brace or operative measures may be obviated. Similarly, injured cruciate and collateral ligaments need not be the source of much disability if the muscle strength is well developed. When fracture union has progressed to the point where muscle contraction will not disturb the position of the fragments, quadriceps exercises are indicated. Even in injuries below the knee, as in the foot, which prevent partial or complete weightbearing, the patient can by exercise prevent muscle weakness, and the circulation of the limb can also be kept in a much better state.

Having maintained the muscle strength throughout the period of convalescence the patient never knows how much benefit he has derived from these exercises and the attending doctor will be gratified by the rapidity with which such an individual becomes restored to usefulness.

TREATMENT OF CEREBRAL PALSY

Frederic B. House, M.D. and Walter J. Zeiter, M.D.
In CLEVELAND CLINIC QUARTERLY,

13:4:213

October 1946

The patient is admitted to the Center on the recommendation of any private physician or clinic, the diagnosis usually being made before the patient comes to our attention.

At the end of the two-week period the case is again reviewed by the physiatrist in a conference with the therapists, psychologists, and medical social worker. Orders are given for physical therapy, speech therapy and occupational therapy. This plan is flexible and may be revised at recheck examinations, which are made every six to eight weeks. Surgical procedures, splints, and braces are included in the general plan of treatment at this time.

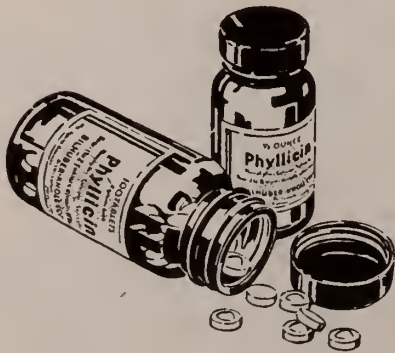
Treatment

Spasticity is a condition involving individual muscles, rendering them spastic, flaccid, weak, normal, or tight. Thus, any treatment of this type cerebral palsy must be based on a careful evaluation of the relative power of the muscles and their antagonist. Under the direction of a physical therapist the patient can then be taught to utilize to best advantage his new balance in power.

(Continued on page 70)

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Detection of the earliest objective sign of protein deficiency—negative nitrogen balance—requires hospitalization for several days, in order that nitrogen intake and excretion can be accurately determined.

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The most dependable and effective means of preventing and correcting protein deficiency is through proper organization of the diet. The recommended intake of 1 Gm. of protein per Kg. of body weight insures nitrogen balance in normal persons. For correction of frank protein deficiency, at least 2 Gm. per Kg. of body weight—and frequently considerably more—is required.

Among the protein foods of man, meat ranks high, not only because of the generous supply of protein it provides, but also because its protein is biologically complete, applicable for the satisfaction of every protein need.

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A black and white photograph of two young children playing in a snowy field. The child on the left is wearing a dark winter coat and a knit hat, with their mouth open in a joyful shout. The child on the right is wearing a plaid winter coat and a knit hat, with their arms outstretched. The background is a soft-focus view of snow-covered ground and trees.

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PHYSICAL MEDICINE (Continued)

Athetosis presents the problem of involuntary motion. Muscle weakness in the athetoid type is thought to result from disuse or tension. Braces may enable the athetoid patient to control involuntary motion, but their use should be accompanied by intensive treatment in conscious relaxation by physical therapy.

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The treatability of the various types of the disease depends upon intelligence of the patient, severity of the involvement, and associated defects such as speech, hearing, and sight.

Summary

1. Recent interest in cerebral palsy has made us cognizant of the extent of the problem and the importance of modern methods of treatment.

2. The importance of coordination of the various specialties and services concerned with the diagnosis and treatment has been emphasized.

3. The psychiatrist, due to his particular training and close association with other specialized fields and services, is in an advantageous position to coordinate treatment.

4. The diagnosis and the importance of differentiation between spastic, athetoid, and ataxic types of cerebral palsy have been briefly discussed.

5. A method of comprehensive planning and several fundamental techniques of treatment have been outlined.

TENDON TRANSPLANTATION IN THE HAND

Hans May, M.D., F.A.C.S., Philadelphia, Penna.

In SURGERY, GYNECOLOGY AND
OBSTETRICS,

83:5:631

November 1946

After Treatment

This is as important as the operation itself. The healing process of a tendon wound passes through two stages: the proliferative and the formative stage. The first stage lasts about 2 weeks. During this time the tendon stumps become united by a connective tissue callus. The latter is then gradually converted into tendon.

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Mason and Allen, who did considerable experimental work on this subject, came to the conclusion that function during the first phase, did not accelerate the development of the tendon callus. On the contrary, function appeared to be harmful insofar as it caused more reaction of the surrounding tissue and weakening of the union. Later on, however, after the first callus had formed, restricted use of the tendon caused but slight irritation with rapid increase in tensile strength of the union.

It is common belief among surgeons, that motion, if started early, will prevent the adhesion of tendons. However, according to above findings and clinical experience, the opposite seems to be the case. Early motion, restricted or unrestricted, favors adhesions. The latter are due not only to irritation of the surrounding tissue, but also to disturbance of the vascularization of the tendon. This is a factor which should be pointed out strongly. The bulk of the blood supply of a tendon outside its sheath is derived from the paratendon. It is only natural that a tendon operation causes some disturbance

(Continued on page 72)

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PHYSICAL MEDICINE (Continued)

of the local circulation, since it is almost inevitable to leave the intimate connections of the paratenal and surrounding tissue undisturbed. This is particularly true in tendon grafting. If, however, the tendon is adequately immobilized, the interrupted blood supply of the paratendon and tendon will become re-established. Early motion, however, may disturb vascularization leading to necrosis of the gliding mechanism and formation of adhesions.

I prefer the molded plaster cast splint to any other kind of splint. The hand is placed in such a position that the suture line is under a minimum of tension.

REFRIGERATION IN SURGERY

Harold I. Miller, M.D., and Paul R. Miller, M.D.,
In AMERICAN JOURNAL OF SURGERY, 72:5:694
Boston, Massachusetts
November 1946

As in many problems in medicine there is a discrepancy between what was postulated, what

was found in animal experimentation and what was found in actual practice. The problems of the original postulates remain unsolved, except for the actual production of anesthesia. The chief difficulty is the dearth of well controlled clinical studies.

The question whether refrigeration prolongs the survival time of anemic tissue remains unanswered. The evidence tends to show that it does. The blessing is not unmixed because of the fibrous replacement of nervous and muscular tissue. The only clinical report with pathologic studies (Richards) is equivocal because arterial insufficiency was established before refrigeration was applied.

The bacteriostatic action of cold vivo is on a weak footing. In all the experimental studies cold was of no value. Clinically, it was. O'Neil's demonstration of the value of cold in a palmar infection in a patient with scleroderma and in a case of gas gangrene and on the other hand the appearance after refrigeration of gas gangrene in the stumps of two refrigerated limbs merely out-

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lines the ramifications of the problem.

The published case histories praise the value of cold in shock. Blalock's studies tend to confirm this although his results are not conclusive.

In the elderly, toxic patient with gangrene and sepsis, amputation with a tourniquet and refrigeration gives excellent results. Here is the chief indication for refrigeration amputation. Pain and shock are eliminated and the operation is performed in a bloodless field. Even then one might wonder whether the tourniquet is not the chief reason for this. If such a patient had a tourniquet applied and received general treatment without refrigeration, when amputation were performed would the results be comparable? The work of Adolph among injured Chinese soldiers suggests that they would be. To those who have seen amputations performed under ice and tourniquet this is unlikely because there is yet no other single method for combating shock, holding infection in abeyance and producing anesthesia.

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A highly fatal disease—influenzal meningitis—is yielding to the therapeutic power of streptomycin.

Four medical investigators, writing in the October 26 issue of *The Journal of the American Medical Association*, state that complete recovery is possible when this new antibiotic drug is used in cases of average severity.

A total of 25 patients were studied at the Babies Hospital and the Department of Pediatrics, Columbia University College of Physicians and Surgeons by Hattie E. Alexander, M.D., and Grace Leidy of New York, and at the Squibb Institute for Medical Research by Geoffrey Rake, M.B., B.S., and Richard Donovick, Ph.D., of New Brunswick, N. J.

Influenzal meningitis is an inflammation of the meningeal membrane which forms the tender

lining of the spinal cord. This disease which is caused by a bacillus should not be confused with true influenza, which is a virus infection.

Twelve patients whose infections were mild or moderately severe recovered promptly and completely after treatment with streptomycin. The duration of infection prior to streptomycin treatment was less than eight days in all cases.

The other 13 patients, the majority of whom had the severe form of the infection, received rabbit antiserum, sulfadiazine and streptomycin. Three of the patients with the severe chronic form of the disease died.

The investigators point out that "in the severe infections the results suggest that therapeutic failure will be reduced to a minimum by the initial use of all three agents, i.e., rabbit antiserum, sulfadiazine and streptomycin."

Speaking of the 22 patients who survived, the authors state that "although it is appreciated that the increase of survivals in this group may increase the incidence of mentally defective children, this therapeutic program must be given a trial until it is demonstrated that all the patients who recover from such infections show severe permanent mental deterioration."

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*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923.



It is ironical that the practice of attempting to cure rickets by holding the child in the cleft of an ash tree was associated with the rising of the sun, the light of which we now know is in itself one of Nature's specifics.

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(See page 35 for complete Table of Contents)

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1. Rehfuess, M. E.: *Indigestion: Its Diagnosis and Treatment*, Philadelphia, W. B. Saunders Company, 1943, pp. 278, 306.

2. Dolkort, R. E.; Jones, K. K., and Brown, C. F. G.: *Arch. Int. Med.* **62**:613 (Oct.) 1938.

3. Annegers, J. H.; Snaap, F. E.; Ivy, A. C., and Atkinson, A. J.: *J. Lab. & Clin. Med.* **29**:853 (Aug.) 1944.

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Cawthorne, T.: The Treatment of the Common Cold, Clin. Sup. to King's College Hosp. Gaz. 18:161.

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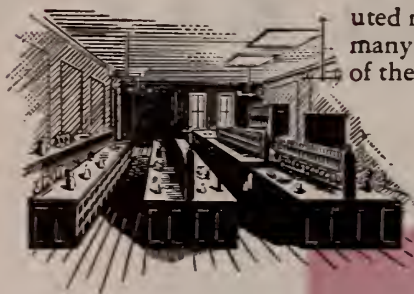
WILLIAM PROCTER, JR.-1817-1874

Pharmacist and Teacher

Hailed, even in his own time, as the "father of American pharmacy", William Procter, Jr. was distinguished as an educator and scientific editor.

In 1846 his alma mater, Philadelphia College of Pharmacy, named him professor of pharmacy—the first such chair in the United States. He was elected president of the American Pharmaceutical Association in 1862.

Collaborating with Theophilus Redwood, he compiled "Practical Pharmacy", the first textbook of its kind published in this country; as editor of the American Journal of Pharmacy, Procter contributed no fewer than 550 original articles, and made many valuable contributions to successive editions of the U. S. Pharmacopoeia.



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WHEN MIDDLE AGE BRINGS A LET-DOWN IN GASTRIC EFFICIENCY

"We found a steady drop in acidity with advancing age."¹

"Gastro-intestinal symptoms occur more frequently than any other symptom in patients over 40."²

"... almost half the patients between the ages of 30 and 60 years included among their complaints that of dyspepsia."³

Increased awareness of the prevalence of gastric secretory deficiencies in the middle aged and aging has focused new interest on the value of adequate replacement therapy.

FOR GASTRIC HYPOSECRETION

GASTRON

Effective substitution therapy for deficiencies in gastric secretion, Gastron increases the acidity and peptic activity of gastric contents... improves gastric digestion... promotes normal emptying time... relieves epigastric distress.

GASTRON is a physiologic mixture of gastric enzymes and hormones plus hydrochloric acid in a palatable, alcohol-free medium... contains: pepsin, rennin, secretin, mucin, and the antianemic principle.

INDICATED in gastric hyposecretion... gastritis associated with achlorhydria; anacidity and achylia in the middle aged and aging; hypochlorhydria associated with food allergies and nutritional deficiencies, including the anemias

THE USUAL DOSE is 2 to 4 teaspoonfuls diluted with 1 or 2 volumes of cold water, following each meal.

SUPPLIED in bottles of 6 and 32 fl. oz.

¹ Meyer, Soier, and Neuwelt: Arch. Int. Med. 65:171, 1940

² Kopelowitz: J. Missouri M. A.: 38:55, 1941

³ Rivers: Proc. Staff Meet., Mayo Clin. 13:87, 1938

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That's your proving ground
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The combined use of an occlusive diaphragm and vaginal jelly remains, in the published opinions of competent clinicians, the most dependable method of conception control.

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You assure quality when you specify a product bearing the "RAMSES"* trademark.

1. Dickinson, R. L.: Techniques of Conception Control. Baltimore, Williams and Wilkins Co., 1942.
2. Eastman, N. J., and Scott, A. B.: Human Fertility 9:33 (June) 1944.
3. Warner, M. P.: J. A. M. A. 115:279 (July 27) 1940.

gynecological division
JULIUS SCHMID, INC.

Quality First Since 1883

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*The word "RAMSES" is a registered trademark of Julius Schmid, Inc.

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Quicker acting, more penetrating and more stable than penicillin is tyrothricin, the nontoxic antibacterial principle of **'Prothricin'** Antibiotic Nasal Decongestant. Applied locally, tyrothricin promptly attacks bacteria, and its low surface tension promotes penetration of tissue crevices and mucosal folds. Moreover, tyrothricin maintains antibiotic efficiency even in the presence of pus or mucus, and since (unlike penicillin) it is sparingly absorbed, local activity is prolonged.

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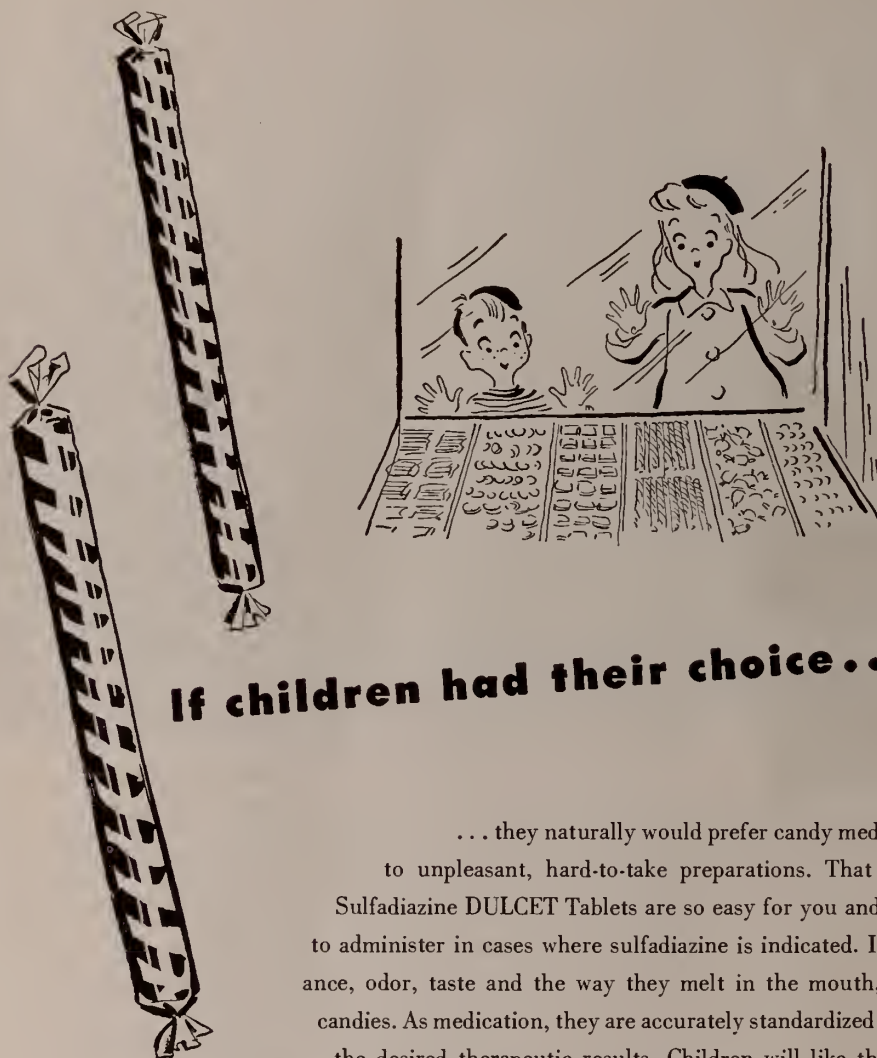
Supplied in 1-ounce, dropper-assembly bottles.

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antibiotic nasal decongestant



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... they naturally would prefer candy medication to unpleasant, hard-to-take preparations. That is why Sulfadiazine DULCET Tablets are so easy for you and parents to administer in cases where sulfadiazine is indicated. In appearance, odor, taste and the way they melt in the mouth, they are candies. As medication, they are accurately standardized to produce the desired therapeutic results. Children will like them, and so will adults who find it difficult to swallow tablets or capsules.

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Sulfadiazine **DULCET** Tablets

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Such strength as a man has he should use

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In addition to its use in obvious androgen deficiencies, Perandren, pioneer brand of testosterone propionate, has been found to have important effects on metabolism . . . in such conditions as deficient growth, myxedema, fractures, and others. In no other field of medicine has the experimental indication of yesterday more quickly become the clinically accepted procedure of today.

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Perandren

PIONEER BRAND OF TESTOSTERONE PROPIONATE

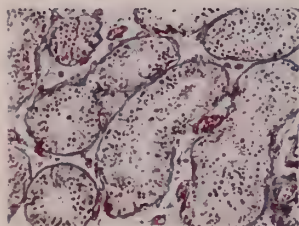
Clinicians have lately found a widening field of application for the androgenic hormones. Other conditions in addition to the early indications such as eunuchism and hypogonadism are now recognized as responding to the use of this therapy. In the male climacteric, for example, symptoms of such general nature as to include psychic, cardiac, genito-urinary and arthralgic aspects, respond to androgens, as brought out by McGavack¹ and Werner.² In the female as well as in the male, testosterone therapy is utilized as a measure productive of improvement or abatement of symptoms in such conditions as the menopause, frigidity, premenstrual tension and mammary carcinoma. Wherever intensive androgenic effect is needed, Perandren, in ampuls for injection, is unsurpassed in potency. For oral administration, often preferred in maintenance therapy, Metandren Linguets offer methyltestosterone in convenient and economical form.

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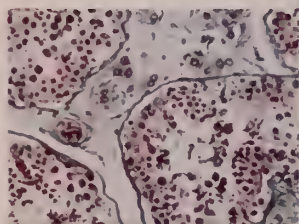
FOR ORAL ADMINISTRATION METANDREN*
(methyltestosterone) in Linguets* of 5 mg., tablets of 10 mg.

1. McGavack, T. H.: J. Clin. Endocrin., 3:71, 1943.
2. Werner, A. A.: J.A.M.A., 132:188, 1946.

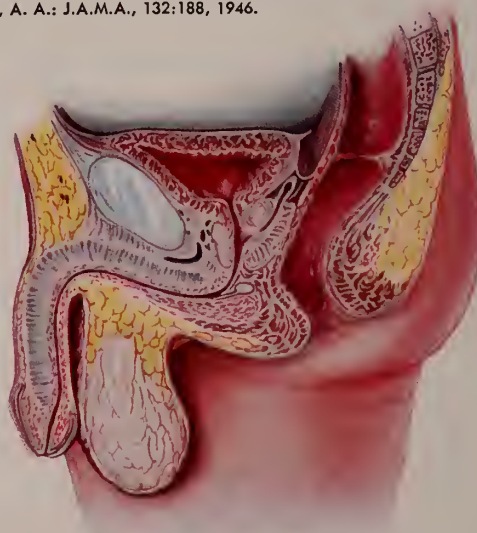


Human testis. Color photomicrograph of transections of tubules showing various stages of spermatogenesis.

Human testis. Photomicrograph of transection of interstitial tissue showing interstitial cells.



Stained smear of human spermatozoa (drowing).



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► His state's 2-year statute of limitations is no help, for the 2 years didn't start 'til the "baby" was 21.

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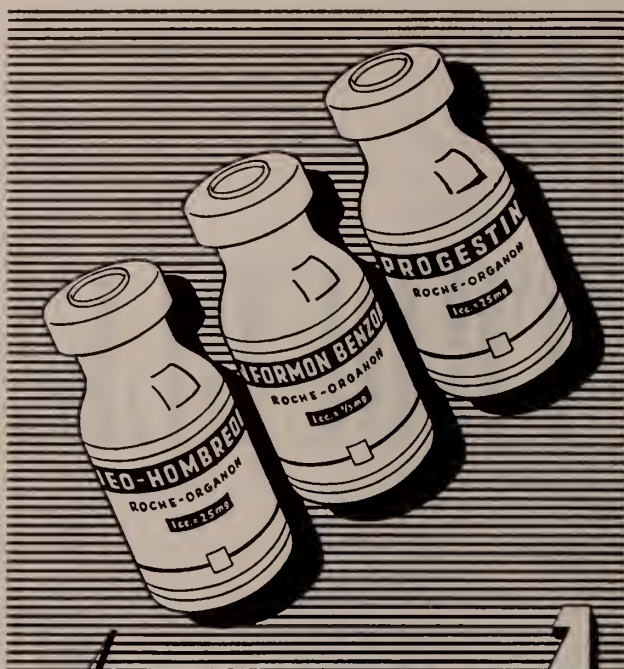
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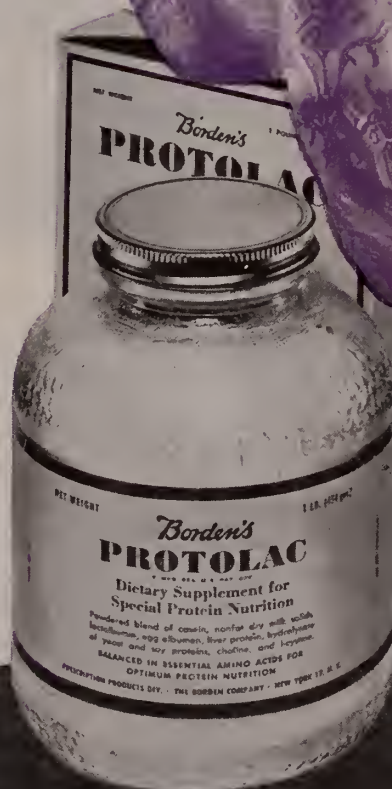
Administration: 5 tablespoonfuls (approximately 35 gm.) 3 or more times daily, or as prescribed. Recipe suggestions included in every package.

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"Premarin" is a naturally

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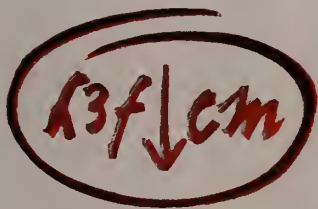
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may be rewarded by early compensation and disappearance
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*J.A.M.A. May 4, 1946

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IN ECZEMA; PRURITUS ANI, VULVAE, and
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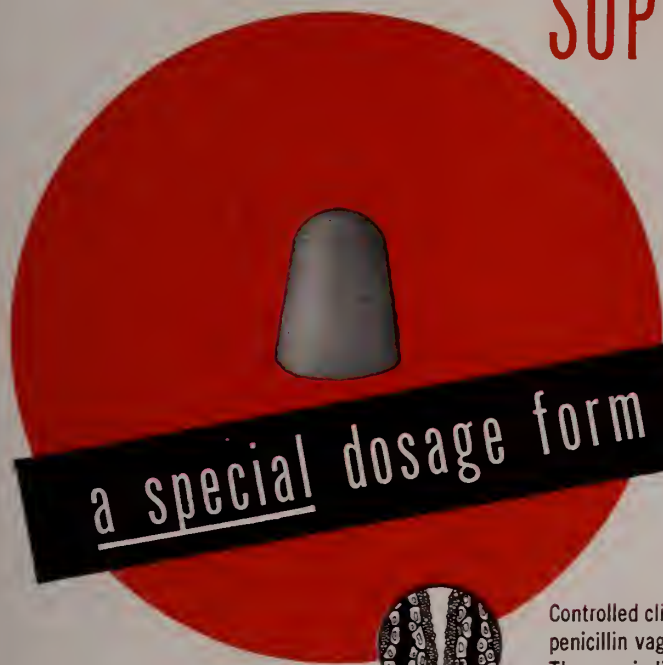
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Vitamin B ₂ (Riboflavin)	2 mg.
Vitamin B ₆ (Pyridoxine Hydrochloride)	0.1 mg.
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When pain, fever, edema, leucocytosis, sense of fullness and impaired hearing are present—AURALGAN by its potent decongestant, dehydrating and analgesic action provides effective relief of pain and inflammation.

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IN CHRONIC SUPPURATIVE OTITIS MEDIA

O-TOS-MO-SAN provides a new Sulfa combination of Sulfathiazole and Urea in Auralgan Glycerol (DOHO) base, completely water-free and having the highest specific gravity obtainable—scientifically developed.

O-TOS-MO-SAN exerts a powerful solvent action on protein matter . . . liquefies and dissolves exuberant granulation tissue . . . cleanses and deodorizes the site of infection . . . and tends to exhilarate normal tissue healing in the effective control of chronic suppurative Otitis Media. Excellent results have also been obtained in furunculosis of the external ear canal.

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WARNING!

The indiscriminate use of the Sulfonamides should be avoided—so that infectious organisms do not become "sulfafast" or patients "sensitive" to Sulfa.

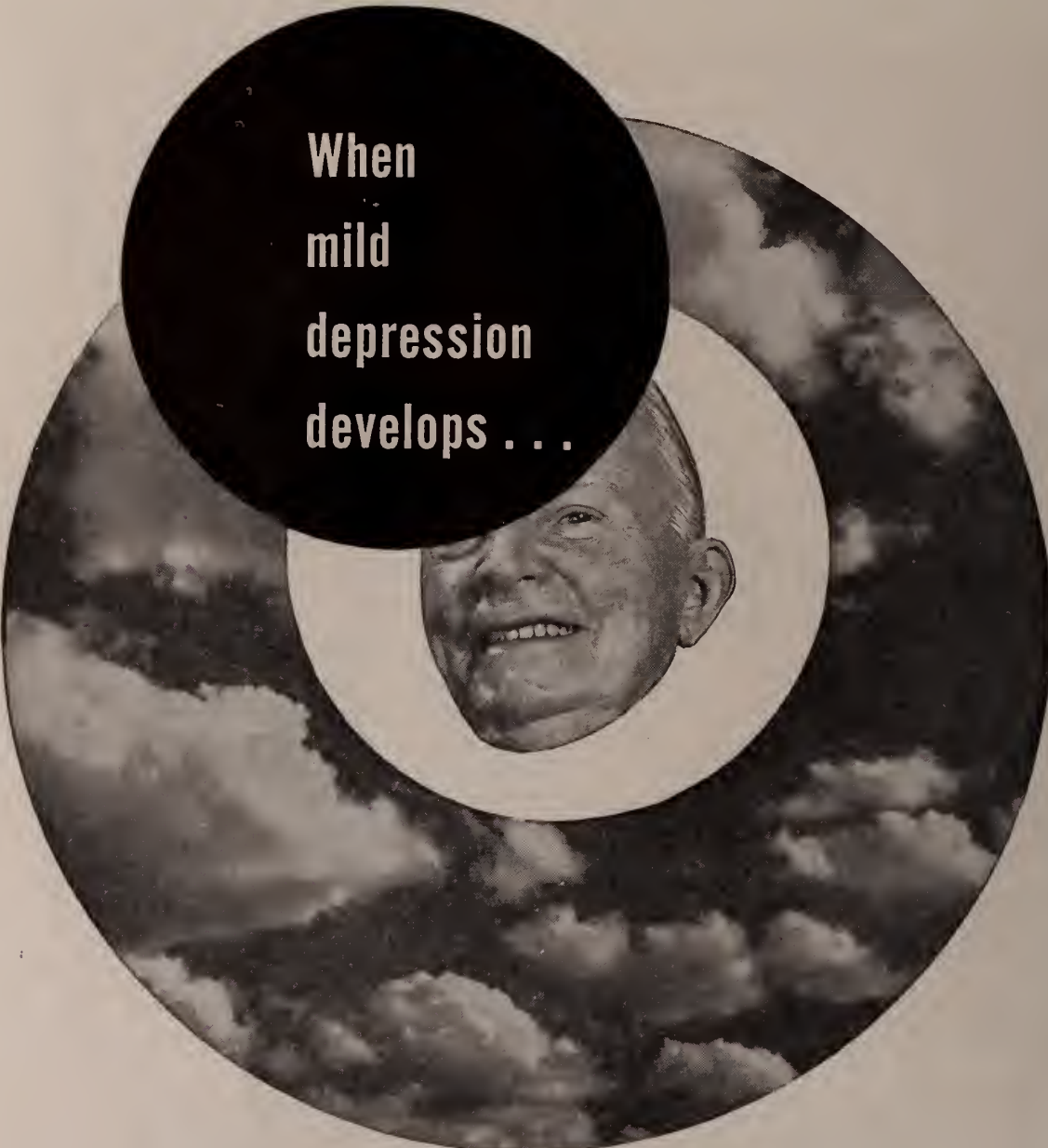
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mild
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. . . during Convalescence . . . in Dysmenorrhea . . .
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. . . *Dexedrine* may be relied upon to increase the patient's
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THE WARREN-TEED PRODUCTS CO., COLUMBUS 8, OHIO

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FEBRUARY, 1947
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The Illinois Medical Journal

February, 1947

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Official Journal of the Illinois State Medical Society

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Editorials

Guest Editorial

LOCAL PUBLIC HEALTH SERVICE
HAVEN EMERSON, M.D.
NEW YORK CITY

What does it mean to the practicing physician? How shall it be defined? When is it adequate? Is it necessary for the family, the patient, his doctor?

These and a flock of similar questions are bound to be raised as soon as enabling legislation and tax appropriations are under consideration, or have been put into effect, to create something new, better, substantial, in the way of a local, city, county or district health department.

Each of the four levels or orders of public health service is of immediate or remote, personal or communal concern to us here in the U. S. A.

We are, all of us, concerned even though quite impersonally with the novelty, the scope, the social vision, and the professional ambition of the World Health Organization of the United Nations. We shall share nationally in a rising standard of health in proportion to the abatement of disease among backward and impoverished peoples in other lands. This international health effort will be successful through example and precept, teaching and cooperation in the dissemi-

nation of the useful facts of preventive medicine, but not through exercise of international authority or by the delivery of personal service by the World Health Organization in any of the nations.

The functions of this successor to the Health Section of the League of Nations will be advisory when request for advice is received from a nation or a group of them, consultative, standardizing in respect to the procedures of marine and aerial quarantine, and in that of biological and other specific therapeutic medicaments, particularly vaccines, sera and the products needed in creating artificial immunity. The familiar epidemiological and statistical studies and reports, so fertile and helpful around the world since 1920, will again be available. Above all, will be authoritative information or public health education to exchange the wisdom of each country with that of its neighbors for the quicker and more effective raising of the level of the public health. We as a nation, will be better prepared to meet our own national problems by virtue of sharing in the evidence of trends and prevalence of disease among peoples with whom we have commercial or travel relationships.

But, except at our own choice and for some special study or observation of our methods and results, we shall not see or meet or be related in our federal, state and local health work to the personnel and routine functions of public health at the international level, as these will be carried on by the World Health Organization. Nor has

the World Health Organization any authority by which it can intervene, alter or require changes in the public health functions of our own various civil governments.

Our federal public health functions, now under the administrative umbrella of the Social Security Administration, will continue to be to some extent duplicating, conflicting and but poorly coordinated as long as the Children's Bureau retains its almost as complete autonomy as when under the Department of Labor. In the main, the federal health services will, as for many decades, exercise their advisory, consultive, standardizing, research and financial assistance functions with respect to public health departments of states and through these to local jurisdictions of government. The U. S. Public Health Service will continue to make effective international sanitary conventions to which U. S. A. has signed its adherence. Interstate commerce will continue to be subject to sanitary require-

ments of the U. S. Public Health Service in cooperation with State Health Departments.

It must be remembered, however, that no federal health authority has any jurisdiction over state and local civil governments in respect to supplying personal services or exercising its police power under sanitary law. These functions are specifically reserved to the several and sovereign states. There is much friendly and helpful cooperation and collaboration among states and between states and federal governments, particularly in matters of vital statistics, communicable disease control and sanitation of interstate water supplies and waste disposal systems. On the request of the State Health Officer with the consent or approval of the Governor, the U. S. Public Health Service may be invited to undertake studies and administrative surveys and even direct services in the interest of the public health of a state or one of its subdivisions of local government, but the federal

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government can not exercise independent authority or make requirements or sanitary regulations not provided for by State Statute or local sanitary ordinance.

The third level of public health services is that of the State Health Department which varies somewhat in the several states but in the main is concerned with making effective the state public health laws and the rules and regulations issued by the State Board of Health or Public Health Council.

Here too the functions of the state health authority do not ordinarily include direct personal services by physicians and nurses to the people of local communities which have their own health officer and public health nurses. Generally the functions of the state department of health are supervisory, consultative, standard making and policy forming. Only in respect to the registration of births and deaths in the work of the central and branch public health laboratory does the physician and patient of a local community have any personal contact with the state department of health. Indispensable coordination, leadership, enforcement of standards, epidemiological advice, emergency assistance to local health officers, central statistical information and public health education service, all these are functions of the state health department.

When we consider the fourth level, which should properly be called the first because it preceded in origin each of the other three and is the true foundation and basis of public health service in the U. S. A., we find the situation fundamentally different because it is here that essential services of a public health department are rendered directly, and personally, to the people of the community, whether of village, town, city or county or combinations of some or all of these under a single local health jurisdiction.

This is where preventive medicine for people as a whole clicks with the preventive and diagnostic and therapeutic services of the physician to his individual patient and family.

There can be no substantial success from the work of a state department of health unless every community in the state has its own adequate local health service. Similarly there would be no effective results from federal and international health organizations unless these are built upon

the universal provision of personal and community services at the local level.

It behooves us to be critical and understanding about this basic application of the sciences and arts of preventive medicine for the benefits of the community by the local health department.

Some 40 million of our fellow citizens in continental U. S. A. still lack the form, structure, personnel, budgetary resources and services of what I shall describe as a minimum basic local health department. Even so advanced and liberal a state as Illinois still has a substantial percentage of its population lacking full-time medically directed local health service. This is to be remedied promptly as soon as the necessary medical, nursing and sanitary personnel can be found.

The local health department has six functions, as follows:

1. Registration of births, deaths and notifiable disease, including the verification of the accuracy and completeness of reports, their tabulation, analysis, interpretation and publication as a basis of administrative action and public information.

2. Control of the communicable diseases including tuberculosis, the venereal infections, malaria and hook-worm disease, where necessary providing for vaccination of children who have not the benefit of services of a private physician.

3. Environmental sanitation including supervision of water, milk, foods and drugs, and the conditions of people engaged in gainful occupation (occupational hygiene).

4. Public health laboratory services either locally or through the state central or branch laboratory, for quick reliable identification of infections, industrial poisons, examination of water, milk etc.

5. The supervision and protection of the health of maternity, infancy, and the child of preschool and school age so far as this is necessary to supplement the care provided by the family physician, the obstetrician and the pediatrician.

6. Health information, so-called public health education, when this is the only resource for the development of an understanding of the preventable diseases by physicians and the laity and the forming of habits and customs which will contribute to the avoidance, or proper action in the presence, of disease which can not be properly brought within the authority of sanitary law.

The local health department has only two re-

sources, one the authority of sanitary law, that is the exercise of the police power of the state in the interest of health protection and promotion, the other education, example, demonstration, or public information of a scientific validity and from a source of accepted authority.

To supply these services a local community with its own tax resources or aided by state grants from its own or also from federal resources will have to spend not less than one dollar per capita of the people served. In New York State it has been found that \$1.50 per capita is necessary at present salary levels. The average throughout the U. S. A. in 1945 was about 67¢ per capita. The essential and minimum full-time personnel for a community of 50,000 persons, as in a county, city-county or multi-county local health unit, is sixteen persons, as follows:

- 1 medical health officer
- 1 public health or sanitary engineer
- 1 assistant sanitarian of sub-professional grade
- 10 public health nurses of whom one should be of supervisory grade
- 3 secretarial or clerical office employees

Some part-time clinical services of physicians may be needed for school medical examinations, and for child health conferences and for tuberculosis and venereal disease patients.

Only by the most intimate and wholehearted collaboration of the physicians, school teachers, parent associations, employers of labor in office or factory and the support of the press and churches and voluntary health agencies can the optimum results be obtained under such professional health leadership.

The services that can and should be rendered by a local health department so led and supported are essential functions of civil government and required by intelligent people as the best means of taking advantage of the rapidly advancing science and art of preventive medicine.

The six functions above summarized can be carried on only through local civil government. They will be futile and unproductive if attempted in a professional, social and economic vacuum. They are part of the pattern of American life where self-government, self-determination, self-support and means of exchange of information and a good school system exist.

This minimum basic local health service is approved by the national professional associations

of competence, the American Public Health Association, and the American Medical Association. It is a primary obligation of the State and County Medical Societies to make sure that this minimum of health service is provided throughout their respective states.

Those counties that already have such local health departments in operation in Illinois know very well that the personnel of this official representative of medical science in civil government cooperates with physicians in preventive measures; is alert to emergency needs to protect against epidemics and catastrophes of a physical nature; is a persuasive force to bring expectant mothers under early medical care; make parents aware of the benefits of immunization procedures; make nurses' visits available in the home at the request of physicians; accept gladly the advice and counsel of the medical members of the board of health and constantly support public opinion in favor of reliance upon the family physician.

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THE 1947 ANNUAL MEETING

The 1947 Annual Meeting of the Illinois State Medical Society will be held at the Palmer House, Chicago, on May 12-14, 1947. The meeting this year will begin Monday morning, May 12, and will run three full days, ending Wednesday evening at 5:00 o'clock. The change from the opening on Tuesday to Monday was made primarily to suit the convenience of the hotel and thus making many more rooms available for members and guests than would have been the case for a meeting beginning as in previous years on Tuesday.

The committee on Scientific Work at a recent meeting decided to hold joint sessions with all scientific sections participating and to arrange a schedule of scientific addresses which would carry the greatest appeal to the membership as a whole. The individual sections may hold a single half-day session, if it is desired, and most likely each of the sections will have this special meeting during the session.

The programs are being arranged by an executive committee consisting of Theodore Van Delen, chairman, Harry A. Oberhelman, vice-chairman, Harold Miller, Secretary, and John F. Sheehan, Assistant Secretary. These men are

delegated the responsibility of arranging the schedule for each session to be held in the Palmer House Grand Ball Room. There will be a break of perhaps 30 minutes of each half day so that the members and guests may view the exhibits, both technical and scientific.

As per the usual custom, the large Exhibition Hall at the Palmer House will have the large display of technical exhibits, while the scientific exhibits will be displayed in the Red Lacquer Room, under the guidance of John A. Mart, Director of Exhibits. As has been the case in recent years, awards will be presented for the best scientific exhibits of the two designated classes and more will be said about these exhibits in an early issue of the Illinois Medical Journal.

There will be a number of outstanding invited guests to appear before the joint sessions throughout the meeting, and the orations in Medicine and in Surgery will be delivered by guest speakers, these to be announced in the near future.

The local Committee on Arrangements, under the chairmanship of H. Kenneth Scatliff, and with R. C. Oldfield as vice-chairman, are making the local arrangements for the meeting in the best possible manner, satisfactory to all.

The April issue of the Illinois Medical Journal will carry the program for the meeting, and as usual, the official programs will be printed and distributed to all registrants at the annual meeting. The two meetings of the House of Delegates will be held on Monday afternoon, and on Wednesday morning, and all delegates reported in advance of the meeting will be properly notified of this arrangement, and will receive a copy of the hand book for delegates by mail before the meeting, as has been the case in recent years.

Technical exhibitors are being selected carefully, and there will be more of these fine exhibits at the 1947 annual meeting than ever before, as more exhibit space has been made available for this meeting.

All of those responsible for the arrangements and conducting of the annual meeting are working in complete harmony to make this the best meeting of the Illinois State Medical Society that has ever been held, and it is hoped that the membership will mark the dates for the meeting on their calendar and plan to be present throughout the three day session.

HEALER OF THE SICK

The St. Louis area is the poorer by the death of Dr. George R. Hays of Marissa, Ill. Attending physician at the birth of 4700 babies, only doctor in Marissa during much of the war, "most useful citizen of his community," were among his honors. He died as an old-time physician would wish, in his car on his way home from one of the night calls he persisted in answering despite his 76 years and ill health.

Medicine has been "pensioning off" the general practitioner and country doctor in recent years, and he is fast disappearing. This is the specialist's era, and we appreciate him. But the general practitioner knows his patients as persons; includes a runaway son, poor crop and even a neighbor's new hat in his diagnosis; is both medical counselor and understanding adviser in matters that are on the domestic side.

He is a town figure who prefers to be paid for his services, of course, but money is secondary, and his is the last item on every home budget. He bring babies into this world and attends the aged as they pass into the sunset of life. He is acquainted with the aches and pains and miseries of assorted patients and prescribes for them all, and with good results. Not for him the specialist's role of restricted concentration on certain portions of the anatomy. He knows it all from scalp to big toe, and has the right pills for everything.

We need the specialists, of course, but there is still room for the Dr. Hayses, those unsung heroes who never have a profound essay in the journal of Medicine, but without whom this world would be far unhappier. When a person needs him, there is nothing more reassuring than the sight of the family doctor, perhaps a bit stooped and his clothing a trifle rumpled, trudging up the walk with that little black grip in his hand. May his tribe never be extinguished.

ST. LOUIS GLOBE-DEMOCRAT, Dec. 10, 1946

It is particularly important that tuberculosis be eliminated among the people 15 to 44 years of age. This group constitutes our reservoir of population replenishment and is the source of our most vigorous labor supply. The continuation of a nation's vitality depends upon the health of its people. We must put an end to the costly neglect of known control methods and take up positively the offensive against a disease that kills the young, the hopeful, and the strong. Editorial, Pub. Health Rep., Oct. 4, 1946.

State Department of Public Health

TETANUS IMMUNIZATION

JEROME J. SIEVERS, M.D., CHIEF,
Division of Communicable Diseases

In a recent letter to the Journal of the American Medical Association, Dr. Ralph Spaeth of Chicago, called attention to the increasing evidence that 1500 units of tetanus antitoxin did not constitute a large enough dose for prophylactic purposes following an injury or burn. It was pointed out that although this dosage of tetanus antitoxin is still being taught in medical schools, that it is used routinely in emergency rooms of hospitals and that it has been sanctioned by the armed forces, nevertheless a number of cases and deaths from tetanus occur following its use.

According to Dr. Spaeth from 10,000 to 20,000 units of tetanus antitoxin should be routinely employed for prophylaxis against tetanus. He further recommends that manufacturers withdraw all 1500 unit size packages from circulation in order to insure that this size dose will not be relied upon.

The Illinois Department of Public Health has been distributing the 1500 unit size package of tetanus antitoxin for prophylactic use. Up to this time this dosage has been commonly accepted as satisfactory. Pending further study and discussion of this subject, the Department will continue to furnish tetanus antitoxin as heretofore. However, it is taking this opportunity of pointing out to all physicians and health officers, the increasing evidence that this dosage may not protect against tetanus. Furthermore, it is recommending that at least 3,000 units of antitoxin be employed in all injuries and burns where

TETANUS, ILLINOIS, CASES, DEATHS, FATALITY RATE

Year	Cases	Deaths	Fatality Rate
1930	82	75	91.0
1931	61	56	90.3
1932	59	37	62.7
1933	66	47	71.2
1934	63	59	93.6
1935	39	26	66.6
1936	56	46	82.1
1937	36	23	63.8
1938	37	24	64.8
1939	46	37	80.4
1940	42	28	66.6
1941	32	25	78.1
1942	38	28	73.6
1943	44	30	68.1
1944	30	20	66.6
1945	32	17*	53.1
1946**	21*	9*	42.9
Total	785	587	74.8

*Provisional figures.

**1946, January 1 — September 30.

possible contamination with tetanus spores may have occurred.

From the table shown it can be seen that a sufficiently large number of deaths from tetanus occur in Illinois each year to warrant consideration of the use of *tetanus toxoid* to produce *active immunity* against the disease. A great many investigators have clearly established the capacity of tetanus toxoid to produce significant and presumably protective serum antitoxin levels in human beings. Among the more than 10,000-000 soldiers in the United States Army during World War II, there were only three known cases of tetanus in soldiers where immunization record showed that the full immunization schedule had been completed.

The indications for the employment of tetanus

toxoid may be summarized as follows: In allergic persons or those with known sensitivity to horse serum; in farmers, hostlers, veterinarians and others experiencing relatively frequent opportunity for contamination of wounds with tetanus spores; and by and large in children, among whom the incidence of infected wounds is high and many unnoticed infections may result in tetanus.

The best type of schedule of tetanus immunization might well be adopted from that of the United States Army: Primary immunization with two doses of alum-precipitated tetanus toxoid or three of fluid tetanus toxoid at intervals of one month or longer, followed by at least one recall dose six to twelve months later, and another recall dose after any injury of the sort that is known to involve the risk of tetanus infection.

FOOD POISONING

An out-of-State county close to the border of Illinois recently experienced an outbreak of food poisoning. There was nothing unique about this outbreak except that the circumstances surrounding it indicated quite well the value of reporting.

According to word from the health officer, a group of women met for a bridge luncheon at one of the local clubs. Creamed chicken was served and all save one or two ate heartily of this item. The bridge game which followed proceeded smoothly for an hour or so. With some degree of suddenness and much to the consternation of the group, the bidding and playing were soon interrupted by the occurrence of nausea and vomiting among the members. Needless to say, the event must have been a bit spectacular.

The health officer learned of this outbreak some hours later as it was reported over the radio. He launched an investigation the following morning. Fortunately the club's manager had placed in the refrigerator specimens of the food served the day previously. These were sent to the laboratory for the usual tests.

While consideration was given to all foods served at the luncheon and all persons who had anything to do with it, the probable cause of the outbreak was soon determined. As the story goes, the chicken had been boned the night before and was permitted to remain overnight

without refrigeration. General inspection of the person who prepared the chicken revealed no skin infection until the nails were examined. Here were found several acute paronychia. The girl gave the history of having elevated the edge of the nail in order to permit the pus to escape shortly before preparing the chicken. In all probability, as concluded by the health officer, the chicken was contaminated with staphylococci during the boning process. Lack of refrigeration permitted growth of the bacteria and subsequent development of the offending staphylo toxin.

At the time of this writing, laboratory tests of the food were not completed but the indications up to that time supported the tentative conclusion of the health officer.

The interesting feature of this experience is the spectacular onset of symptoms. If these women had left the club shortly after lunch and had separated, nausea and vomiting would have been an individual rather than a group experience. Undoubtedly many of them would have attributed their illness to "something I ate" and passed it off. Others would have called their physician. Any one physician might have seen at the most only one or two cases, particularly in a large community. This would be nothing unusual in a physician's life. Consequently it is quite possible that this outbreak would have escaped notice, especially if the physicians were not in the habit of reporting cases of food poisoning to the health department.

In all probability, food poisoning is more common than we think. Because of the oftentimes mild symptoms or the short duration of illness, much of it fails to come to the attention of the physician. Those seen are, in most instances, isolated cases. There is little opportunity for the private practitioner to appreciate the extent of any outbreak which these individual cases may represent.

It is for this reason that food poisoning in Illinois and elsewhere is a reportable disease. Prompt reporting will enable the local health department to initiate an early investigation and in most cases determine the cause. Elimination of that cause is the only means of preventing additional cases. Furthermore, such investigations permit the opportunity of teaching tech-

(Continued on page 101)

Correspondence

U. S. PUBLIC HEALTH SERVICE EXAMINATIONS

Competitive examinations will be held early in 1947 for appointment to the Regular Corps of the United States Public Health Service, according to a recent announcement by Dr. Thomas Parran, Surgeon General. Seventy-five vacancies exist in grades of Assistant and Senior Assistant Scientist.

Written examinations, covering each candidate's particular field of science, as well as related fields, will be held April 14 and 15 at places mutually convenient to the applicant and the Service. Oral examinations will be held during the period February 13-April 9 in thirty cities, strategically located throughout the United States. In Illinois this will be at Marine Hospital, 4141 Clarendon Ave., Chicago, March 18 and 19.

Commissions are available to scientists trained in any of the following fields: bacteriology, mycology, parasitology, entomology, malacology, biology, chemistry, physiology, physics, statistics (mathematical, demographic, etc.), psychologists, and milk and food specialists. Assignments will be in line with the individual's demonstrated ability and experience.

An applicant for the grade of Assistant Scientist must be a citizen of the United States, have seven years of educational and professional training or experience, possess a certificate or diploma from an institution of recognized standing, and be able to pass a physical examination given by a medical officer of the United States Public Health Service. The same requirements, plus an additional four years of training or experience,

apply to those seeking the grade of Senior Assistant Scientist.

Commissioned Officers in the Regular Corps enjoy the same benefits and privileges as do officers of the Army, Navy, or Marine Corps. The grade of Assistant Scientists is equal to that of First Lieutenant in the Army. Annual pay, with allowances for dependents, is \$3,811. A Senior Assistant Scientist ranks with a Captain of the Army and draws, with allowances for dependents, \$4,351 a year.

United States Public Health Service Officers are entitled to full medical care and hospitalization for themselves and their families, including disability retirement at three-fourths base pay. They receive thirty days annual leave with pay. Periodic promotions are based upon length of service and merit. The retirement age is 64.

Application forms and additional information may be obtained by writing the Surgeon General, United States Public Health Service, Washington 25, D. C.

WHERE WE STAND IN MEDICINE

The Institute of Medicine of Chicago, 86 East Randolph Street, is sponsoring a series of lectures under the general title "Where We Stand Today in Medicine". These are presentations by Fellows of the Institute of Medicine on recent contributions and current thought in the basic sciences and in the various branches of clinical medicine, arranged by the Committee on Postgraduate Activities.

The meetings are held on the 2nd and 4th Friday afternoons of each month, promptly from 4:45 to 5:30 o'clock in the Assembly Room of

the Institute. They are open without fee to all physicians and allied professional groups. A question period after the presentations will be conducted at the discretion of the individual speakers.

February 14: "Clinical Application of Sternal Puncture", Louis R. Limarzi, Assistant Professor of Medicine, University of Illinois College of Medicine.

February 28: "Diseases Characterized by Enlargement of the Lymph Nodes: Diagnosis and Treatment", Raphael Isaacs, Director, Department of Experimental Hematology, Michael Reese Hospital.

March 14: "Nerve Regeneration", Paul A. Weiss, Professor of Zoology, The University of Chicago.

March 28: "Ulcerative Colitis", Walter L. Palmer, Professor of Medicine, The University of Chicago.

April 11: "Physiology of Bone", Franklin C. McLean, Professor of Pathological Physiology, The University of Chicago.

April 25: "Emotional Problems of Elderly People", Maxwell Gitelson, Attending Psychiatrist, Michael Reese Hospital.

May 9: "Mental Hygiene and Social Discipline", Richard L. Jenkins, Psychiatrist, Health Service, University of Illinois, Clinical Associate Professor of Psychiatry, University of Illinois College of Medicine.

May 23: "The Newer Surgery of the Spleen", George M. Curtis, Professor of Surgery, Chairman, Department of Research Surgery, Ohio State University College of Medicine.

Opportunity will be afforded on intervening Fridays for presentations by visiting authorities.

46 FROM ILLINOIS RECEIVE FELLOWSHIP IN COLLEGE OF SURGEONS

The following list of Illinois physicians were received into fellowship in The American College of Surgeons at the convocation held December 20 during The Clinical Congress in Cleveland.

Trinidad B. Afable	Chicago
Stanley D. Anderson	Grayslake
Henry F. Berchtold	Springfield
Berget H. Blocksom, Jr.	Rockford
Jack E. Brooks	Chicago
Edmund Crowley	Chicago

Maurice J. Drell	Chicago
Harold Earnheart	Wilmette
Clifford W. Emons	Alton
Lewis S. Ent	Cairo
Joseph E. Fields	Joliet
Morris T. Friedell	Chicago
Kilian F. Fritsch	East St. Louis
J. Major Greene	Chicago
William V. Haskins	LaSalle
George F. Hibbert	Chicago
Carl Ireneus, Jr.	Chicago
Herman A. Jacobson	Chicago
Felix Jansey	Maywood
Frank F. Kanthak	Chicago
Graham A. Kernwein	Chicago
Robert B. Lynn	Alton
Herbert L. Michel	Chicago
Harry E. Mock, Jr.	Chicago
Clarence W. Monroe	Oak Park
Mary Louise Newman	Jacksonville
Francis J. Phillips	Chicago
John F. Poser	Chicago
Alfred Rasmussen	Chicago
Richard A. Rasmussen	Chicago
William H. Requarth	Chicago
Harvard L. Romence	Springfield
Bernard G. Sarnat	Chicago
Francis E. Sauer	Rockford
William J. Schnute	Chicago
Danely P. Slaughter	Chicago
Kurt Springer	Kankakee
Hack U. Stephenson, Jr.	Oak Park
Clifford P. Sullivan	Chicago
William B. Sullivan	Chicago
Robert M. Sutton	Peoria
Joseph B. Teton	Chicago
Maurice R. Williamson	Alton
Francis D. Wolfe	Chicago
Simon L. Wolters	Chicago
Worling R. Young	Geneseo

OPHTHALMOLOGISTS PLEASE NOTE

A directory of all diplomates to January 1, 1947, will be published soon.

This directory will be arranged alphabetically and geographically. No biographical material will be included.

Every effort will be made to make this directory accurate and diplomates who have not already done so should notify the Board office at once stating their name and address exactly as they wish them listed.

Price is \$3.00 postpaid.

NOTE: Diplomates are requested to keep the Board office informed of all changes of address so that the files may be kept up-to-date.

Officers for 1947.—Drs. Goar, Chairman;

Theobald, Vice Chairman; Beach, Secretary-Treasurer.

1947 *Examinations*:—Atlantic City, June 8-13; Philadelphia, June 13-16; Chicago, week of October 8.

LOYOLA ALUMNI LUNCHEON MAY 13TH AT PALMER HOUSE

The alumni of the Loyla University School of Medicine will renew their annual meeting during the Illinois State Medical Society meeting at the Palmer House in May. The date for the alumni luncheon will be May 13th.

Doctor Francis J. Gerty, head of the department of neuropsychiatry at the University of Illinois School of Medicine, is president of the association; Doctor Robert E. Lee of Chicago is president-elect, and Doctor George A. Hellmuth is secretary-treasurer. The executive secretary of the association is Reverend G. G. Grant, S. J. Last year 125 alumni were present at this meeting.

INTERNATIONAL COLLEGE OF SURGEONS

The Twelfth Assembly of the United States Chapter, International College of Surgeons will be held in Chicago, September 29-30-October 1-2, 1947, at the Palmer House.

The Thirteenth Assembly is scheduled for Kiel Auditorium, St. Louis, Missouri, November 16-17-18-19, 1948.

We are sending you this information so that in planning your scientific programs, a conflict of dates may be avoided, if at all possible.

UROLOGY AWARD

The American Urological Association offers an annual award 'not to exceed \$500' for an essay (or essays) on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been in such specific practice for not more than five

years and to residents in urology in recognized hospitals.

For full particulars write the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee. Essays must be in his hands before May 1, 1947.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel Statler, Buffalo, New York, June 30-July 3, 1947.

THIRD BASIC SCIENCE COURSE STARTS AT U. OF I. IN OCTOBER

January 1 marked the beginning of the second nine-month basic science course in the University of Illinois College of Medicine.

At the same time, 20 physicians completed the first course which began last April 1.

"The course is designed to review the basic sciences and coordinate them with clinical medicine," Dr. George Milles, coordinator of the course said.

It is another in a series of professional post-graduate courses designed primarily, but not exclusively, to meet the needs of medical officers returned from service in the armed forces.

The first six months is devoted to broad general coverage of the basic sciences. The last three months deals with individual specialties.

Content of the course meets all medical specialty board requirements, Dr. Milles noted. For board examination purposes, it is equivalent to a year of residency.

All 20 of the first group of post-graduate students and the enlarged enrollment of 32 for the second course are veterans.

In addition to helping to meet the immediate need of young veterans, the long-range objective of the course is to assist physicians generally in preparing for specialty board examinations.

Beginning with the third course in October 1947, one group of students will be enrolled and graduated each academic year.



Original Articles

THE POSITIVE SEROLOGICAL REACTION IS NOT A DIAGNOSIS OF SYPHILIS.

JOHN R. PORTER, M.D.
ROCKFORD

It has been conservatively estimated that in the United States there are thousands of nonsyphilitics being treated for syphilis. This is appalling when it is considered that the treatment is expensive, not without danger, and requires a considerable length of time to be adequately carried out; not considering the more important mental reactions of the patient who has been told that he has syphilis on the sole symptom of a positive blood test. Think of the heartaches, shame, worries, and tendency to withdraw from his usual associates a middle aged man will go through when he has been told that he has syphilis because of a chance positive blood test taken in a routine manner and with no thought of syphilis.

There is no serological test that is specific for syphilis. The originators and developers of the tests in common use to-day cannot tell you exactly for what they are testing. There is probably a change in the chemistry of the blood serum proteins, but what that change is or what causes it is not known. In fact the limitations of our present knowledge of the protein molecule form are barriers to knowledge of what takes place in the serological reaction. Nothing in any of the usual tests is specific for infection by the *treponema pallidum* and no reagent used in any of these tests contains the *treponema* or its metabolic products. How different from the specific tests such as the Widal reaction for

typhoid fever, the Schick test for diphtheria susceptibility, or the Mantoux reaction for evidence of a tubercular infection at some time during the patient's life. In these latter tests the specific organisms or their metabolic products are used as the antigens and a great deal of reliance may be placed on them for specific diagnoses. This is not true with the flocculation, the precipitin or the complement fixation tests for syphilis. They all use antigens made from powdered beef heart and most are heavily fortified with cholesterol to make them more sensitive. Most syphilitics react to them but so do many other disturbances of the serum protein chemistry, some of which are known and many that are unknown. It is my belief that if bloods were drawn every day from all of us we all would show a positive reaction sooner or later. And that nearly a hundred percent would, within five years, have a condition to cause a serum protein change that would react positive to the standard tests.

The sponsors of the various tests have been endeavoring to work out verification tests to separate the true syphilitic from the false positive reactions. So far, none have succeeded in clearing the situation and, in fact, they may have clouded it to an undesirable degree.

Then of what use are these tests? In the first place they are the best tests that we have and will have to be used until something better has been developed. When used with the complete understanding of their limitations they are of great aid in making a diagnosis. Group testing, such as the industrial examinations, the marriage tests, the hospital routine examinations, etc. will point out which individual should be further

studied. The reactions are not diagnostic but very few persons who have untreated syphilis of over six weeks duration will escape having positive reactions when the extra sensitive antigens of the present day are used. So, with very few exceptions, negative reactions, where there has been no treatment and when over six weeks have elapsed since a possible exposure, can be reliably taken to mean that the individual does not have syphilis. Where there is any question about a negative reaction repeat tests should be made at two to three week intervals. Not so reliable are the positive reactions. The positive test, itself, is not diagnostic of syphilis.

The individual with a positive test alone is entitled to as careful and painstaking investigation and examination as any medical or surgical patient who might receive any dangerous treatment. The laboratory — except for the positive dark field examination — cannot make a diagnosis of syphilis for you. The serologists will be the first to agree with me on this statement. You will have to work as hard or harder on a suspected case of asymptomatic latent syphilis to make a diagnosis as you will on any other condition in the entire medical field. If you do not care to make the effort or do not think that you have the experience send the patient to some one that will give him a break. Under no circumstances should treatment be started until an accurate diagnosis of syphilis has been made. If treatment is once started you prevent the making of an accurate diagnosis. How would you like to go through the remaining years of your life with that doubt of whether you do or do not have syphilis on your mind? I'll say that you wouldn't. Neither would your patient.

In the second place the tests are of value in following the course of treatment. This is especially true if they are titrated so that you will know if the disturbance in the patient's blood serum caused by the treponema is abating as the treatment becomes effective. Even in this instance disturbing conflicts appear as a new and more sensitive antigen may be used in a later test causing a jump in the titre which wouldn't have happened if the old antigen had been used.

In the course of my work in a venereal disease clinic, as a member of a Selective Service Medical Advisory Board, and in my office I have seen many false positive serological reactions. Stokes'

and his colleagues found, with a selected group (those suspecting syphilis and those having had treatment eliminated themselves) presenting themselves as blood donors for the Red Cross, that 489 had positive reactions out of 210,261 possible donors. 98 of these were carefully studied for three months or more and only 40.5% were diagnosed syphilis. Just think, in this selected group about 60% of the positive reactions were false. What about the routine tests that are made in your practice when syphilis is not suspected and which are found positive? They certainly should be completely investigated.

I have examined 98 discharges from the armed forces who had positive serological reactions at their separation examinations. Five of these were finally diagnosed as having syphilis and from histories and examinations they were judged to have congenital syphilis. Yet in all previous examinations they had been negative. 93 or 94.9% were decided to be free from syphilis. By continued monthly tests they all became negative and remained negative without treatment. In my experience nothing but time and continued testing without treatment will find the false positives. Most false positive reactions will become negative within a month. A few will take two or three months depending on the cause of the chemical changes in their serum proteins and I have followed one ex-soldier who had malaria and many inoculations for six months before he presented a negative serum reaction.

If your patient with a positive blood test has early syphilis you will find the lesions of early syphilis on examination and get a history of exposure within the usual time limits. If he has the complications of latent syphilis a careful and complete examination will find the complications. In either case you can and should start the appropriate treatment at once. However, if he is one of the great majority of positive reactors found on routine testing who has an asymptomatic latent syphilis he will require continued study before you can arrive at an accurate diagnosis. Here it matters not how early you start treatment, and in many cases of long standing infections it is questionable whether he should be treated at all. So take your time and make an accurate diagnosis. If he needs treat-

ment it can be decided upon after the diagnosis of syphilis has been made.

I give a list of conditions which I have found to be the causes of false positive serological reactions. It is by no means complete but it will give you an idea of what to look for. They are listed more or less in the order of their frequency in my experience:

1. Malaria. This is a frequent cause of false reactions and I see them in the follow-ups of service discharges.

2. Protective inoculations.

a. Injections for virus influenza protection.

Most of the service men from over-seas received these injections just before boarding ship to come home. They, at times, caused disagreeable reactions.

b. Small pox vaccinations.

c. Injections for typhus, typhoid and other protection.

In the army where multiple inoculations were given in a short time as many as 18% had positive serum reactions when the bloods were drawn shortly after the inoculations were completed.

3. Upper respiratory infections. This may be anything from a slight cold to lobar pneumonia or active tuberculosis.

4. Pregnancy. The metabolic changes in the mother due to pregnancy may at times cause a positive serum reaction. I have treated three cases who had negative reactions early in their pregnancies and who became positive in the later months. None had signs of an early syphilis. I was very reluctant to treat these patients but the law requires it and I didn't care to be responsible for a syphilitic baby. There wasn't time to see if they were false positives. None of them received over seven injections of an arsenical, not enough to have cured them, yet all three became negative right after delivery (one on the next day) and all babies were perfectly normal. Their titres remained constant during the entire treatment period right up to delivery yet all were negative within two weeks after and remained negative without further treatment.

5. Injuries and burns where there is a destruction of tissues.

6. Most anything that will cause a fever.

7. For no apparent reason at all.

Cleveland J. White and his associates in the Dermatological Department of Loyola University School of Medicine² became concerned over the number of false positive reactions that they encountered in conjunction with various dermatological conditions. They did something about it. They prepared an exhibit showing the possibilities of the false positive reactions and have shown it at a number of medical meetings. This was very instructive and it reached a large number of doctors. I hope that they took home with them the warning to "Stop, Look, and Investigate" any positive serological reaction obtained on a routine examination and where syphilis was not suspected before they started treatment on the sole symptom of the positive blood test.

Who is at fault that a very large proportion of the medical profession accepts the laboratory report of a positive serological reaction as being diagnostic of syphilis? Is it the medical schools because of the insufficient instruction in the diagnosis of syphilis? P. S. Pelouze³ in a survey of the medical schools of the country during the war years found two or three Class A schools which admitted that the current graduating classes had not received one hour of instruction in the diagnosis and treatment of gonorrhea. Practically none had a desirable course. Is the other major venereal disease slighted in a like manner?

Is the Public Health Service at fault by corraling all of the reported active cases of syphilis into the Intensive Treatment Centers, thus removing from the medical schools the desirable material for instruction? Or is it the insistence of the public health departments of the various cities and states on the immediate treatment of all individuals with positive blood tests found in their laboratories?

John H. Stokes⁴ answers the above questions as follows: "I don't think that the fault in the biologic false positive situation lies anywhere in particular. It is just part of the inevitable deficiencies as well as the inevitable progress of human knowledge, and I think we can afford to feel rather glad that the situation is being corrected than too greatly disturbed over the people who have unfortunately been treated without cause. I remember a story that was told us in the old days in medical school, which you may have heard, to the effect that after Simms in-

introduced ovariectomy there were literally platters full of ovaries rather sickening described as oysters, passed around the tiers of visitors at the operating rooms of Gynecologists and Surgeons. It's discouraging to think that we have to go through such a stage to reach anywhere in knowledge, but apparently we do."

The wheels of progress in human knowledge grind slowly. Perhaps we should be thankful that they grind at all. If this communication will do one small bit in speeding those wheels I shall be satisfied.

SUMMARY

1. The positive serological reaction for syphilis can be and often is a false biological reaction.

2. There is nothing specific for syphilis in any of the various serological reactions now in use.

3. Syphilis in most every instance gives a positive reaction so the negative reaction is of help in ruling out syphilis.

4. Many conditions other than syphilis will, at times, give a positive reaction.

5. Nothing but time and repeated testing will prove a false reaction in the face of a positive serological reaction with no history of infection and no other signs and symptoms.

6. Every patient with a positive serological reaction and no other obvious signs or symptoms is entitled to as careful examination and investigation as in any other condition in the entire medical field.

7. Do not start treatment for syphilis until an accurate diagnosis has been made on other evidence than the positive serological reaction alone.

8. "Stop, Look, and Investigate" before syphilitic treatment is started.

206 W. State St.

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1. Stokes, J. H.; Boerner, Fred; Hitchens, A. P.; and Nemser, S; Nonspecific Reactions in Testing for Syphilis, *J.A.M.A.* 130: 2 (Jan. 12) 1946.
2. Exhibit of the Loyola Group at the meeting of the Illinois State Medical Society, Chicago, May, 1946.
3. Personal discussion with author.
4. Personal communication to the author.

As mass radiography reaches a greater number of the public, it will be imperative for general hospitals to provide part of the additional beds required to hospitalize the newly discovered tuberculosis patients, because existing facilities in special sanatoria will be inadequate. Hospital Survey News Letter, Feb., 1946.

REFRIGERATION IN SURGERY OF THE EXTREMITIES

WILLIAM J. PICKETT, M.D., F.A.C.S.

CHICAGO

Allen in 1941 was impressed by the fact that gangrene of an extremity was hastened by application of heat, and delayed by the application of cold. Lowered temperatures diminish oxygen consumption in the tissues and inhibit cellular damage from oxygen want.

Stafford and Nathanson¹ studied, (1.) the optimum temperatures desired for refrigeration, (2.) the duration of temperatures required for anesthesia, and (3.) the minimum temperatures allowable to avoid damage to tissue cells. This was found to be (1.) 57° F. to the toes, 36-38° F. of the calf while the deep temperatures were found to be somewhat higher. (2.) Three hours duration was found to be the average time required. However this was somewhat determined by the size of the limb. A finger could be anesthetized in fifteen minutes. (3.) It was observed that a temperature of 40° or below will produce frost bite if the extremity is too rapidly returned to room temperature.

Ebin² has shown that the inferior vena cava of the cat can survive a temperature of -70° F. Spermatzoa may survive a temperature of -260°. The tissues of a mastodon unearthed in Siberia after thousands of years could be eaten by dogs. Bacteria have been frozen in liquid helium at -450° F., yeast cells at -300° F. without apparent injury.

From our present knowledge, unicellular organisms may survive extremely low temperatures, but the cellular architecture of higher forms of life would suffer permanent damage.³ An irreversible cellular necrosis results from one or a combination of both; destruction of cellular architecture, or a concentration of sodium chloride, disturbing osmotic pressure and the interchange of oxygen.

Ottoway and Foote⁴ in the U. S. Naval Bulletin report a case of refrigeration of wounded extremities in which the femoral artery was severed above the knee. On the twenty-sixth day a line of demarcation became evident below the knee, and amputation above the knee was done on the twenty-ninth day.

Miyakawa in the American Journal of Surgery reports nine cases and concludes that refrigeration

tion of a crushed extremity allows a delayed operation, and what was an emergency becomes an elective procedure.

Kirz⁵ in the British Medical Journal reports a ease of gas gangrene following refrigeration due to contaminated ice. Another author reports a severely infected leg kept under refrigeration for eighty-nine days.

In our experience of ten cases at the Cook County Hospital we were struck, as are all others, with the beneficial effect of refrigeration on the patient. We have seen patients in diabetic coma and suffering from sepsis, improve remarkably in twenty-four hours. Sepsis is readily controlled, blood sugar is managed, and cardiac complications may be given the medication indicated. In other words what was to be a desperate emergency operation can now be an elective procedure carried out at the most desirable time.

Refrigeration controls the activity of saprophytic bacteria, which does away with all odor and the need for frequent messy dressings. The patient is usually cheerful and looks forward to the trip to the operating room.

It is our practice to allow from a few days to a week of refrigeration before surgery. This allows more thorough preparation of the patient, some time for collateral circulation to develop at this site of the stump, and it allows the general circulation to adjust itself to the loss of the extremity.

Our method consists of applying the tourniquet at the upper limits of the gangrenous area or just below the knee. A section of rubber sheeting is placed beneath the leg and the leg covered with ice cubes or cracked ice. The sheeting is wrapped around the leg and the whole encased in two woolen blankets. The head of the bed is slightly elevated to allow the melting ice to run into a receptacle at the foot of the bed. The ice may be replenished as needed every four to six hours.

If refrigeration anaesthesia is to be employed in preference to another type of anaesthesia, a second tourniquet is applied just above the knee, and that part refrigerated for three hours before operation. This allows better healing of the stump.

SUMMARY

Ten cases of gangrene of the extremity were treated by refrigeration. Two cases died from shock and sepsis within twenty-four hours follow-

ing operation. One case died two months later of bronchopneumonia and auricular fibrillation.

CONCLUSIONS

Refrigeration is an effective and advantageous procedure in the management of gangrene of the extremities. It is a simple procedure and does not require any unusual equipment.

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1. Safford, F. K., and Nathanson, M. B.: Arch. Surgery, 49: 12-22, July, 1944.
2. Ebin J.: Arch. Surgery 46: 386, 1943.
3. Allen, F. M.: Canadian M. A. Journal, 51: 220-226, Sept. 1944.
4. Ottoway, J. P., and Foote, J. J.: U. S. Naval Bulletin, 43: 1041-1043, Nov. 1944.
5. Kirz, E.: British Medical Journal, 2:662, Nov. 18, 1944.

STAPHYLOCOCCUS PNEUMONIA IN CHILDREN

Roentgen Aspects

W. E. ANSPACH M.D.

CHICAGO

Two fairly recent discoveries direct our interest with greater intensity toward pulmonary lesions where the staphylococcus is the sole invader, or predominates as an infective agent. (1) The prevalence of this disease as a complication, or as an almost constant associated finding of microscopic cysts of the pancreas in young children, following symptoms of pancreatic deficiency and (2) the opportunities that penicillin might offer in holding this infection in check. The latter has attracted widely the attention of the medical profession as a whole, and because of the prevalence of staphylococcus infection in children, the pediatrician, in particular. While it is too early to draw final conclusions it seems that penicillin will be unable to prevent a high mortality in patients with pancreatic fibrosis. Staphylococcus has always been a dreaded organism where the lung was invaded because of its necrotizing effect on the tissues, leaving an unusually high mortality. It has a reputation as a primary, as well as a secondary invader. The staphylococcus accounts for the thick puss and ultimately fine abscesses, associated with a prolonged sojourn of a foreign body, and the wide spread, fine, ill defined shadows of the blood born staphylococcus throughout both lungs. These are of frequent

occurrence and call for only slight emphasis at this time. The most common lesion is that caused by invasion of the lung by way of the bronchial tree. The lining membranes of the bronchi are first involved and then adjacent tissue. The bronchogenic nature of the process is usually portrayed nicely on serial roentgenograms and, when fully understood, often affords an opportunity to render real assistance in making the diagnosis. The full significance of a highly destructive agent in the bronchial tree with all its mechanical consequences must be recalled when examining roentgenograms of young children.

As a secondary invader the staphylococcus has long played a prominent role. During the influenzal pandemic of 1889, and earlier, a number of writers (1) had observed the typical necrosis of bronchi and alveolar structures or "splenization" of the lung. In this epidemic of "Le Grippe" there were also multiple abscesses characteristic of staphylococcus of the lung. During the pandemic of 1918, the staphylococcus was not an important causative organism in any significant portion of the complicating pneumonias with only a few exceptions — notably those occurring at Camp Jackson, as reported by Chickering and Park. Cultures made from lungs of 312 fatal cases revealed staphylococcus as the only or predominant organism in 153 instances. The disease here was often fulminating, but often of long enough duration to allow for the formation of innumerable abscesses in the lung. A report from No. 3 Canadian General Hospital indicated that the Staphylococcus was next in importance only to the influenza bacillus. The staphylococcus (mostly aureus) was found as the only or predominating organism in 14 as compared with 30 in which the influenza bacilli were obtained. At the Military Hospital in Malta, the staphylococcus was predominant in 7 of 9 fatal cases. In contrast to the usual experience, necrotization and abscess formation have been noted in epidemics in the absence of the staphylococcus. One must conclude that certain conditions within the lung invite the staphylococcus to take hold rather than the staphylococcus possessing high epidemic qualifications. The recognition of small abscesses, excepting in a fulminating influenzal infection should arouse suspicion of the presence

of staphylococcus in the absence of an existing epidemic and favor its diagnosis. In nearly all acute cases which show multiple foci of infection with numerous small peribronchial abscesses, the staphylococcus has been the offending organism.

Fibrocystic Disease of the Pancreas. — Chronic cystic fibrosis of the pancreas as a disease entity has occupied a prominent place in pediatric literature for the past eight years. We are especially interested in it because of the high percentage of staphylococcus infections of the lung which develop in these patients often as a terminal process. The recognition of this disease was delayed because the pancreas grossly appeared normal and was not examined microscopically. Consequently the presence of inspissated secretions in the acini and ducts and atrophy of the parenchyma of the pancreas was not discovered. Clinically, our interest centers about the child because of frequent upper respiratory infections, inability to gain weight and frequently, large foul smelling stools containing large quantities of fat. There are frequently episodes of diarrhea which are characterized by not being foamy or watery. If pulmonary symptoms develop early in life, the foul stools may not be a dominant feature. Once the respiratory symptoms develop all attention is apt to be centered here, and the underlying disease process is likely to go unrecognized. At Children's Memorial Hospital, we have observed 33 cases which have come to necropsy and the diagnosis of this disease has been made in a number of patients still living. The latter are assumed to have the disease because of the absence of pancreatic trypsin and lipase in aspirated duodenal contents, a reduction in the vitamin A curve, and the associated clinical signs mentioned above.

All but two cases have shown changes on roentgenograms of the chest which are strikingly similar. In all but one of the necropsy group, staphylococcus aureus was found to be the only or predominating organism. This group of young children with fibrocystic disease differ in no particular way from the sporadic bronchogenic staphylococcal pneumonia excepting in the degree of involvement, that is, there is a greater tendency toward involvement of the whole lung.

Time and interest do not justify the presentation of individual histories and physical findings

of this fibrocystic group which have been widely discussed in recent literature.

All of the theories of origin of pancreatic fibrosis in children agree on abnormal secretions of pancreas. (Wolbach and Farber.³) Deficiency or insufficiency of the mucinase require for the making of mucus in a normal physical state — thick mucus which inspissates and leads to obstruction of the ducts and acini. Back of this is a possible autonomic imbalance which controls secretions of the pancreas and mucus glands. (Farber.³)

The symptoms depend upon the extent of the infection. If the disease is fulminating, death may occur rapidly, often within a week or ten days. The temperature may reach 105° and the leukocyte count 40,000. In other cases which may be called the acute necrotizing type, symptoms may be similar but usually more time is required for the development of the peribronchial lesions, as noted on roentgenograms and there is less toxicity and recovery may occur. The symptoms of the chronic type is that of recurring bouts of fever with usually a constant low grade temperature elevation over long periods of time. In this group, where the staphylococcus was associated with pancreatic fibrosis, 33 of the 35 cases, the final diagnosis was made at necropsy.

There is frequently a pretussus-like cough or asthma like respirations. Thick mucus which is produced in the trachea and bronchi is expelled with great difficulty and accounts for these symptoms.

The X-ray Signs. — The x-ray signs in a bronchogenic staphylococcus infection of the lung is that expected in a fulminating tracheo-bronchitis. The hilar markings are markedly accentuated and the bronchi extending outward stand out prominently like rough irregular twigs. Small focal areas of consolidation are predominant about the bronchi and larger areas of pneumonic consolidation are often present farther out in the parenchyma. If the lungs are extensively involved there are signs of local or diffuse emphysema with the leaves of the diaphragm occupying low positions and the intercostal spaces widened. The mediastinal structures are slender as though squeezed by the over-expanded lungs. Alveolar, lobular, and

lobar atelectasis are common with the associated shift in the position of the diaphragm, ribs, and mediastinal structures. The ragged appearing bronci with distal irregular patches of soft tissue clouding and abscess formation have been the most characteristic x-ray signs in our group, and aid in differentiating this disease from milder forms of tracheo-bronchitis, asthmatic bronchitis, Ayerza's disease and lipid pneumonia. The roentgen picture resembles greatly cases seen following the aspiration of smoke in children near asphyxiation. Early reports supported a steadily progressive lesion in the lung, but we have seen areas with marked improvement while new lesions developed simultaneously elsewhere. A few older cases have almost cleared roentgenologically and have enjoyed satisfactory health. One clinical case has progressed nicely for three years. Recent Roentgenograms show only slight scarring at previously clouded zones in the lungs.

The blood borne type of staphylococcus pneumonia is that of miliary distribution of ill defined soft, or semi-discreet shadows scattered evenly throughout both lungs.⁷ All of these have followed a severe skin infection, usually furuncles and all succumbed before abscess cavities could be seen on roentgenograms of the chest. X-ray signs which strongly suggest a staphylococcus infection cannot be said to be diagnostic, but often favor this diagnosis. The most common staphylococcus pneumonia is associated with fibrocystic disease of the pancreas and should arouse suspicion of that disease. In doubtful cases the other clinical manifestations of pancreatic disease should tip the scales toward the correct diagnosis. Hypomotility of the small intestines revealed by barium studies or gas and fluid in segmented loops of small bowel in the absence of acute abdominal symptoms are a point in favor of this disease. Intestinal obstruction shortly after birth likewise favors this disease because of prenatal changes in the stool (meconium ileus).

Bronchiectasis. — Any condition which holds a virulent organism in the bronchi for a long time is apt to be followed by bronchiectasis. The process which is often identified by the x-ray as evidence of atelectasis is common in staphylococcus infections of the lung of long duration. Destruction of the alveoli and damage of the bron-

chial walls occurs rapidly in the delicate tissues of young infants where this disease process predominates. Since in fibrocystic disease of the pancreas, the pulmonary changes are often fulminating until death, bronchiectasis is seldom demonstrated on chest roentgenograms as a network of fine shadows seen in older individuals who are maintaining a much better state of health. Bronchiectasis is more sporadically located throughout, and less likely to be limited to a lower lobe. The severe illness accompanying the fatal cases have commonly been found to have bronchiectasis at the necropsy table.

The pathology in our cases corresponded to those observed by Farber. The lungs of patients living for more than a few months after birth were invariably diseased. Hyperexpansion of the lungs, most prominent anteriorly at the time of autopsy, was the usual finding and this was the result of partial obstruction in the trachea, bronchi, and bronchioles caused by thick tenacious mucoid and mucopurulent exudate. The process in the lungs was characterized usually by bronchiectatic and bronchiolectatic abscesses, thickening of bronchiolar walls and varying amounts of Bronchopneumonia. Either emphysema or obstructive atelectasis was present. When the process was of long duration, considerable fibrosis of the lung was found and a chronic interstitial form of Bronchopneumonia was superimposed upon the original process. There was distention of the mucous glands and the bronchi were filled with inspissated material.

SUMMARY

The roentgenograms of 40 young children with staphylococcus pneumonia have been presented and briefly discussed, two varieties are recognized:

1. Blood-borne, following skin infection with a rapid exodus.

2. Bronchogenic which often is a complication of foreign material in the lung, follows other pulmonary diseases such as influenza, or follows sooner or later, the less resistant bronchial mucosa and the presence of thick secretions in fibrocystic disease of the pancreas. The latter is the most fatal and the most common and accounts for many of the deaths in a Childrens' Hospital. Chest roentgenograms follow a strikingly similar pattern and their recognition often

will lead to further analysis and the correct diagnosis.

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MARKED HYPERPROTEINEMIA IN SUBACUTE BACTERIAL ENDOCARDITIS

(And simultaneous Hyperthyroidism and Subacute Bacterial Endocarditis)

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Elevation of the serum globulin occurs frequently in subacute bacterial endocarditis.¹ It is usually accompanied by concomitant lowering of the serum albumin so that the total protein remains approximately normal. In our patient the total protein reached 12.1 gm. per hundred cc., a level far higher than the normal 6.5 to 8 gm. This large increase came from the globulin whose value was 7.77 gm. in contrast to the normal of 2.5 to 3 gm. The serum albumin of 4.33 gm. was well within the limits of normality. The albumin-globulin ratio, normally 1.13 to 1.72, dropped to 0.55 in this patient.

Report of Case

H. P., a 55 year old Jewish male, complained of cough, weakness, sweating, occasional palpitation and tightness in the chest for the past six months when he entered Mt. Sinai Hospital, September 7, 1939. He had lost 25 pounds in the preceding four weeks. Auricular fibrillation developed shortly before his hospitalization. Twenty-five years earlier he had been told that he had a "bad heart". He was confined to

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bed at that time although he had no symptoms of cardiac failure. On physical examination, a bruit was heard over the nodular right lobe of the thyroid gland. Systolic and diastolic murmurs were audible at both the apex and the base of the heart. The blood pressure was 110/80. Auricular fibrillation was present without evidence of congestive failure. An occasional red blood cell was found in the urine whose specific gravity was 1.030. The blood non-protein nitrogen, urea nitrogen, creatinine and Kahn tests were normal. Except for a reduction in hemoglobin to 72%, the hematological examination was normal.

Sinus rhythm was re-established after treatment with quinidine sulphate for two days, and auricular fibrillation never recurred. Occasionally the patient's temperature reached 101, but after the administration of Lugol's solution, no fever occurred. One week after the entrance, the patient suddenly became mentally dull, had impairment of muscular coordination, slurred speech and slight weakness of the left side of the face. These symptoms disappeared in a few days. The spinal fluid was clear, the cell count normal, the Pandy reaction one plus, the Wassermann test negative, and the colloidal gold 3322110000.

The basal metabolic rate ranged between plus 33% and plus 43% in repeated tests between September 9 and September 23, 1939. During this period, although the patient remained at complete bed rest and consumed a high caloric diet, his weight dropped from 109 to 101 pounds. After three weeks of medication with Lugol's solution the thyroid gland became large and firm, the basal metabolic rate dropped to plus 18% and his weight increased to 120 pounds. This favorable response to Lugol's solution confirmed the diagnosis of hyperthyroidism. The thyroid gland, excised by Dr. H. M. Richter, October 10, 1939, was described by the pathologist as a "colloid goitre with areas of hypertrophy and hyperplasia." After the operation the patient's weight rose to 134 pounds and the basal metabolic rate dropped to minus 7%.

March 1, 1940 the patient returned to the hospital with the same cardiorespiratory complaints he had on the first admission. In addition, he was bothered by abdominal pain, distention and belching after meals, enlargement of the abdomen and swelling and rash on the legs. His abdomen was protuberant, the liver was 6 cm. below the costal arch, splenic dullness was increased, a profuse purpuric rash was present on both lower extremities, one purpuric spot was seen in the pharynx, moderate pitting edema of the ankles and some clubbing of the fingers was present. Albumin and a few red blood cells were now persistently found in the urine. The hemoglobin dropped to 50%, the red cell count to 3,200,000, while the white and differential count remained normal. The non-protein nitrogen rose to 62 mg. per hundred cc. and the urea nitrogen to 34 mg. The creatinine was normal. Blood cultures were repeatedly negative.

Hyperproteinemia and hyperglobulinemia were first observed March 8, 1940. The total blood protein was 10.9 gm. per hundred cc., with 4.7 gm. albumin and

6.2 gm. globulin. Subsequent determinations of the blood proteins and associated tests are shown in Table I. The total protein and globulin values fluctuated considerably but were persistently high, while the albumin remained approximately constant. The A/G ratio was reversed throughout the eight months of observation. The two diseases with which hyperproteinemia was most constantly associated in the United States, lymphogranuloma venereum and multiple myeloma, were ruled out by a negative Frei test, normal roentgenograms of the bones, normal sternal marrow and absence of Bence-Jones protein in the urine.

Severe diarrhea of ten to twenty watery stools daily developed March 9, 1940 and persisted in spite of treatment. By March 15, petechiae had become visible in the conjunctivae and an irregular fever as high as 101 occurred. In spite of transfusions of whole blood and washed red cells, the hemoglobin reached only 82% and the red cells, 3,900,000 per cu. mm. April 22, the patient had a sudden attack of severe pain in the left upper quadrant of the abdomen, aggravated by deep breathing and associated with tenderness of the affected region. This was interpreted as splenic infarct. July 21 he had a chill with fever, low blood pressure and pulselessness. He appeared in extremis for a few days but then slowly improved.

He re-entered the hospital October 25, 1940 with evidence of severe congestive heart failure refractory to treatment. A left hemiplegia and aphasia without loss of consciousness developed suddenly November 24, 1940. The patient expired the next day. Antemortem blood cultures were again negative. The final clinical diagnosis was subacute bacterial endocarditis.

The significant autopsy observations by Dr. Israel Davidsohn were:

1. Thrombo-endocarditis of the mitral valve and endocardial lining of the auricles. The vegetations were large and friable and were sterile on smear and culture. Aschoff bodies were present under the endocardium and in the myocardium.
2. Chronic rheumatic deformities of the mitral, aortic and tricuspid valves.
3. Mycotic emboli to the arteries of the mesentery with multiple mycotic aneurysms.
4. Marked hyperplasia of the reticulo-endothelial (Kupffer) cells of the liver.
5. Loehlein's focal embolic glomerulonephritis.
6. Interstitial nephritis.
7. Embolus in the circle of Willis.

COMMENT

Differential Diagnosis. The presence of marked hyperproteinemia and hyperglobulinemia in the patient, along with persistently negative blood cultures, led to doubt regarding the diagnosis. It was especially difficult to exclude multiple myeloma, which had to be considered because of the hyperproteinemia, since cases of this disease have been reported in which x-rays of the bones and sternal punctures have remained

TABLE 1. LABORATORY DATA (Blood)

Date	Total Protein	Serum Albumin	Serum Globulin	NPN	Urea N	Formol Gel *	Takata Ara *	Weltman coagulation band	Sedimentation Rate mm./hr. Westergren (uncorrected)	Kahn test	Wassermann test
9- 8-39				37.2	24.8					—	
3- 2-40				62.0	34.0				110	—	Anti-com-
3- 4-40				51.0							plementary
3- 8-40	10.90	4.70	6.20	65.0	42.0	Neg.			129		Anti-com-
3-15-40	8.12	3.84	4.28								plementary
3-18-40				76.8	46.0						(By Sachs
3-19-40							Neg.				method
3-20-40								10			neg.)
3-25-40	12.1	4.33	7.77			1 plus		10			
3-27-40							Neg.				
4-22-40	8.06	4.11	3.95	44.0	23.5						
10-25-40	8.78	4.69	4.09			1 plus	Neg.	10	125		
11- 7-40				84.8	65.0			10			
11- 9-40				68.0	43.0						
11-11-40	7.84	3.86	3.98						59		

*These tests are usually strongly positive in hyperglobulinemia. A technical error is not excluded.

Rouleaux formation 4 plus on 3/25/40.

Highest calcium value was 11.4 mgs. per cent (on 4-22-40).

Creatinine, sugar, phosphorus, phosphatase, cholesterol, cholesterol-ester, chlorides and icterus index were within normal limits at all times.

negative for many months and the diagnosis was finally established only at autopsy.

Analogies to Libman's "abacterial phase of bacterial endocarditis". Libman² in 1913 reported a series of cases of bacterial endocarditis "which have spontaneously become bacteria free" so that for a variable period before death blood cultures were negative and at autopsy the vegetations were sterile. He introduced the concept of the abacterial phase of bacterial endocarditis. Our case is remarkably like those he described. The most characteristic features of his cases were the sterile blood cultures, the prolonged course, the frequency of congestive failure, azotemia in most of them, and the termination of 40% in uremia. The characteristic renal lesion in the ordinary type of bacterial endocarditis is Loehlein's embolic glomerulonephritis. Because of its focal character and the great reserve power of the kidneys, it does not produce azotemia. Libman thought that diffuse glomerulonephritis tends to develop in the abacterial cases because of their unusually long duration whereas in the bacterial cases sepsis, embolization or inter-

current infection kill the patient before diffuse nephritis and uremia can develop.

Relation of azotemia to hyperproteinemia. The presence of azotemia in our case of sterile vegetative endocarditis and the unusual frequency of azotemia in Libman's series suggests that hyperproteinemia may have been the common causative factor of the renal insufficiency. The impairment of renal function associated with hyperproteinemia has been attributed to plugging of the glomerular capillaries, inspissated protein, disturbances of osmotic pressure due to increased protein concentration or to increased rouleaux formation and auto-agglutination of the red blood corpuscles. A moderate degree of azotemia may occur in congestive heart failure but the elevation of the non-protein nitrogen had occurred in our case before cardiac failure supervened.

Interstitial nephritis and hyperproteinemia. The presence of interstitial nephritis in this case is of interest because of its rarity. Cecil³ says of interstitial nephritis: "The disorder is usually associated with severe sepsis or with diph-

theria, and constitutes a post mortem finding without clinical significance." McCallum⁴ lists scarlet fever and diphtheria as the disease in which interstitial nephritis has been found. Ewing⁵ states: "Exudative and interstitial nephritis has been observed in many cases of myeloma and some authors have associated it with changes in blood protein." Hyperproteinemia and hyperglobulinemia are the rule in multiple myeloma and have been observed in scarlet fever. The association of interstitial nephritis with hyperglobulemia may be more than accidental.

The marked reticulo-endothelial hyperplasia is noteworthy. Bing⁶ believed that since a common factor in the various conditions associated with hyperglobulinemia is a proliferation of cells belonging to the reticulo-endothelial system, this system is probably the site of formation of globulin. The findings in our case are compatible with this hypothesis.

Possible virus etiology of sterile bacterial endocarditis. We question whether all cases of sterile bacterial endocarditis had a previous bacterial phase. The evidences of activity in this disease are just as marked in the so-called abacterial as in the bacterial cases. The persistently negative blood cultures and the absence of demonstrable organisms in the vegetations form some basis for the speculation that a virus may produce this type of endocarditis. An increasing number of common pathological states have recently been attributed to viruses. Eaton and his co-workers have demonstrated an immunological relationship between the virus of meningopneumonitis and that of lymphogranuloma venereum whose association with hyperproteinemia and hyperglobulinemia is well known. We offer this speculation as a working hypothesis for further investigation.

Hyperthyroidism and Subacute Bacterial Endocarditis. The association of hyperthyroidism with subacute bacterial endocarditis is so rare that we have been able to find only one other reported case.⁷ The hyperglobulinemia was unrelated to the hyperthyroidism, as the latter had already been surgically corrected before the hyperglobulinemia was discovered.

SUMMARY

1. Marked hyperproteinemia and hyperglobu-

linemia were associated with subacute bacterial endocarditis in our case.

2. The frequent occurrence of azotemia in abacterial thrombo-endocarditis may be related to the associated hyperproteinemia.

3. A virus etiology is suggested in some cases of sterile thrombo-endocarditis.

4. The simultaneous occurrence of subacute bacterial endocarditis and hyperthyroidism is rare.

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STREPTOCOCCUS VIRIDANS MENINGITIS WITH PNEUMONIA

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Pneumonia or meningitis due to streptococcus viridans infections, unassociated with subacute bacterial endocarditis, is a rare occurrence. The presence of both pneumonia and meningitis in a patient who recovered is of sufficient interest to form the basis of this report.

Until the advent of chemotherapy any infection resulting from the green producing streptococcus was associated with an exceedingly high mortality rate. Gray reports that only sixty-six cases of meningitis due to all types of streptococci had recovered from 1901 to 1935. Rantz, after reviewing the literature, states that chemotherapy should lower the mortality rate in streptococcal meningitis from 95% to 20%. He states that 20% of all types of streptococcal meningitis are of the green producing type. Of this group 44% followed operations or injury, 11% followed upper respiratory infections and 11% no preceding cause for the disease could

be found. Hodges gives a much lower incidence of streptococcus viridans meningitis. He reviewed 275 cases admitted to the Boston Infants' and Children's Hospital and found only one case of meningitis due to the green producing streptococcus.

At the Evanston Hospital the incidence of this disease has been low. Since 1940, 37 patients with meningitis have been treated and the case herein reported is the only one due to the streptococcus viridans.

Streptococcal viridans pneumonia also is exceedingly rare. Bullawa emphasises that although this organism is frequently found in the nose and throat it seldom causes a pneumonia process. Reiman is of the same opinion. Solomon, Manasch and Kalkstein reported 5 cases of streptococcus viridans pneumonia with one recovery. These authors point out that the diagnosis rests upon isolation of the organism from either the blood, pleural exudate or direct lung aspiration.

Experience at the Evanston Hospital emphasizes the rarity of streptococcus viridans pneumonia. Since November 1940, 1193 patients with pneumonia have been admitted. Only one of these were of the green producing type. One patient was an infant 3 weeks of age who died on the third hospital day. The diagnosis was verified at post mortem. The second case is herein reported.

CASE REPORT

Mr. E. S., a 60 year old white married male was first seen at home on the morning of March 9, 1946. He stated that 3 days previously he had begun to have aching pains throughout the body, a mild cough and a slightly sore throat. He felt chilly and upon taking his temperature found it to be 102°. He remained in bed and took aspirin at frequent intervals. For the next two days he felt progressively weaker, and had frequent shaking chills and profuse sweats. The temperature varied from 99° and 103° and the cough continued but was unproductive. On the evening of the second day, the patient developed a severe unremitting generalized headache.

On the morning of March 9, 1946, I first saw the patient at home. He appeared acutely ill but was perfectly clear mentally and was sitting partially dressed in a chair. Examination revealed a temperature of 102°, a pulse of 100 per minute and slightly increased respiration. The pharynx was moderately injected, the ears were normal and there was no cervical adenopathy. No neck rigidity was present. The heart was normal except for a mild tachycardia. No abnormal

lung findings were present. A transverse upper abdominal scar was present and the liver, kidneys and spleen were not palpable. There was no abdominal tenderness or rigidity. The blood pressure was 140.

Hospitalization was advised, the clinical impression being a probable virus pneumonia. Due to the shortage of hospital beds, the patient was not admitted until 9 o'clock that night. During the afternoon he had become very restless, irrational and at 5 P.M. could not be aroused from what his wife thought was a deep sleep.

Physical Examination. — On Examination at the hospital the patient was found to be comatose. The neck was very rigid and the Kernig and Brudzinski signs were positive. There was a cogwheel rigidity of all four extremities. The biceps, triceps, patellar and Achilles reflexes were equal but hyperactive. The abdominal reflexes were absent. There were no pathological reflexes. The temperature was 103° rectally and the respirations were 32 per minute. The physical examination was otherwise essentially the same as it had been that morning.

Past History — The patient had been a known luetic for 20 years and had had adequate treatment. A gastric resection had been performed two years previously because of a gastric ulcer.

Laboratory Data. — A spinal puncture was performed immediately and a manometer reading revealed a pressure of 300 millimeters of water. The fluid was grossly cloudy and 1000 cells per cubic millimeter were found. These consisted of 91 per cent polymorphonuclear leucocytes and 9 per cent lymphocytes. A centrifuged smear stained with Gram's stain revealed large numbers of Gram positive diplococci which were later identified as streptococcus viridans. The spinal fluid protein was 217 milligrams per cent. The sugar was less than 10 milligrams per cent, chlorides 588 milligrams per cent and the Wasserman was negative.

Blood culture taken immediately upon admission revealed a heavy growth of streptococcus viridans. Throat culture was positive for the same organism plus a few colonies of hemolytic streptococci. The red cell count was 3,840,000, with 9.0 grams of hemoglobin. The white cell count was 12,300 with 90 per cent polymorphonuclear leucocytes, 8 per cent lymphocytes, and 1 per cent monocytes. Marked toxic granulation of the cells was present. Blood chemistry the following morning revealed a non protein nitrogen of 28.6 milligrams per cent, urea 10.1 milligrams per cent and chlorides 418 milligrams per cent. The sedimentation rate was 78 millimeters per hour by the Westergren method. The Kline reaction was positive. The urine was normal except for a trace of albumin and a few red blood cells.

Portable x-ray examination of the chest revealed a small area of consolidation in the mid portion of the right lower lobe.

Hospital Course. — The patient was immediately given 20,000 units of penicillin in 10 cubic centimeters of saline intrathecally and started on 50,000 units every

three hours intramuscularly. Five grams of sodium sulfadiazine was administered intravenously. Continuous oxygen was given by nasal catheter. Intravenous sodium sulfadiazine was given twice daily until March 14, 1946, when the patient was able to take the drug by mouth. Three thousand cubic centimeters of fluid were given parenterally each twenty-four hours for the first three days. On each of these days 1000 cubic centimeters of one-sixth molar sodium lactate was part of the fluid intake to insure alkalinity of the urine. The white blood count, urine and blood sulfadiazine level were checked daily. The sulfadiazine level was maintained between 14 and 16 milligrams per cent. Transfusions of five hundred cubic centimeters of type specific blood were given on the third and fourth hospital days.

On the third day the patient began to show signs of responding to external stimuli and on the fifth day he was able to take food and fluids by mouth. Sulfadiazine was taken orally on the fifth day and it was found necessary to give 2 grams every four hours in order to maintain an adequate blood level. Blood cultures were repeated on the third and fifth hospital days and were reported as negative. A spinal puncture repeated on the fifth day revealed the following findings: Protein 76 milligrams per cent, sugar 44 milligrams per cent, chlorides 638 milligrams per cent. There were 340 cells, 92 per cent polymorphonuclear leucocytes and 8 per cent lymphocytes. The culture was negative.

The rectal temperature dropped to 100° on the third hospital day and did not exceed 99° after the ninth day. Sulfadiazine was discontinued nine days after admission, but penicillin was continued every three hours intramuscularly until dismissal on the thirty-second day. The dosage of penicillin was lowered to 20,000 units every three hours after the fifth day. A spinal puncture on March 20, eleven days after hospitalization, revealed normal findings except for the presence of thirty cells.

The pneumonic process in the right lower lobe was slow in resolving and was not complete until April 9, 1946, when the patient was discharged thirty-two days after admission to the hospital.

DISCUSSION

The finding of the streptococcus viridans in the blood stream, spinal fluid and throat of the patient justify the conclusion that this organism was the cause of the meningitis. These findings strongly suggest that the pneumonic process was also the result of the streptococcal infection but definite proof of this point is lacking in that no direct lung punctures were obtained for culture. The normal heart findings and rapid improvement mitigate against the diagnosis of bacterial endocarditis, although this possibility cannot be completely disproven. The lack of any history of a preceding injury and the absence of disease

in the ears and paranasal sinuses suggest that the streptococcus viridans gained entrance into the blood stream through the naso pharynx with a resulting infection of the meninges and possibly the lung.

SUMMARY

A case of streptococcus viridans meningitis with recovery is presented. The possibility that the associated pneumonia was probably the result of the same organism is considered. Pertinent articles in the literature are reviewed and experience at the Evanston Hospital is discussed.
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REFLECTIONS BASED ON PSYCHIATRIC WORK IN AN ARMY GENERAL HOSPITAL IN THE ETO

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We want to put the war behind us — except perhaps for some glorified, pleasant, or exciting memories. But there are perhaps some valuable lessons to be recalled, in understanding from a motivation point of view, the difficult problems which lay before us in finding economic and international security.

Perhaps it is not too traumatic to recall some of the factors which made some men good soldiers and fighters and others unable or emotionally ill. I think that we shall find these factors not unrelated to those which will determine whether in our day and culture, men can find peace and secure livelihoods. At least the thought is worth exploring.

The writer's psychiatric experience during the war was chiefly acquired in a continental general hospital which saw many army casualties

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from the fighting in Germany or the Northern Continental invasion. The combat exhaustion cases included disturbances which had developed in individuals long in combat or in soldiers who had engaged in short periods of battle. All were evacuated to us in the rear because it was felt either that they could do no more combat duty or required long rehabilitation before this was possible.

The soldiers' verbalizations whether in ordinary conversations or in confusional states or while they were being "abreacted" soon began to form into an interesting body of data which challenged evaluation. It seemed possible to allow for exaggerations and rationalizations, phantasy and elaboration in order to get at some interesting material for speculation both about the emotional life of the soldier in combat and also the psychological environment to which he was reacting.

It is difficult to discuss some environmental influences without emphasizing them at the expense of others. Certainly one of the most striking was the morale of the combat unit or group in which the soldier participated. This ordinarily intangible something became very tangible indeed in the feelings of soldiers during battle. Captain Herbert X. Spiegel brought this out well in his paper on his North African experience. But the morale of the group was something not only variable and sensitive to general and specific conditions but was particularly dependent upon the leaders, the equipment, the food, the shelter, and so on. However, it also interpenetrated into an entirely different area — the morale back home. Each soldier was not only a member of a combat team at the front but of some group or groups back home from whom fragile but important threads reached out to him via letters, packages, newspapers, articles, rumors, and so on.

We can say that the favorable environmental factors could be divided into two groups — the physical environmental conditions which gratified chiefly the basic human needs and the psychological elaborations and intangibles within the human environment. Of the former, some which we may enumerate are: fine equipment, adequate food, adequate manpower, but also solid preparation and planning. Our army usually came off well when judged by these

factors just as our Country comes off magnificently judged by its natural resources. While food, shelter, etc., satisfied physical needs, they were at the same time strong psychological supports. Of the human environment, its group and individual morale, whether on the front, or in the rear hospital, or at home, we shall have more to say later.

Let us now try to some extent to separate the internal psychological conditions and factors of the soldier under great stress. It is obvious of course, that these are tied to and closely related to the external condition, even though we separate them for the moment.

Major Ludwig spoke of some of the following favorable internal "factors": capacity for strong pride; capacity for great sense of duty; great sense of belonging; strong faith in leadership; convictions about the war; and the sense of personal invulnerability in combat. We can see that these are not so different from the list which Dr. Roy Grinker gave us as early as 1943 under the heading "Protective factors which defend the individual against anxiety." Grinker's list runs as follows: (1) Capacity for group identification; (2) Drive toward a goal which is compatible with combat activity; (3) Capacity for great detachment; (4) Convictions of personal invulnerability; (5) Ability to express one's hostile feelings in combat without too much incapacitating guilt; (6) A minimum of physical exhaustion, fatigue, hunger or physical pain; and (7) A constitution which does not have a low threshold to anxiety. It is interesting that Grinker had to bring constitution in at that time.

Let us return to Ludwig. In considering his theories we enter into the field of ego psychology, but also into the field of motivation, in an important, if difficult way. The sense of pride he spoke of, was pride in being able to do combat or to continue at arduous and dangerous tasks. The sense of duty, he spoke of, sprang from one's conscience or super-ego and one's obligations to the group or society. The sense of belonging mentioned, resembles these, yet is different. The withdrawn individual may have a strong sense of personal duty and yet have little group spirit or the capacity to draw strength from the group. One would imagine that Grinker's very detached group might be limited in

their capacity for group identifications, even though they might be protected from depressing over-identifications (with dead or wounded buddies) by their detachment.

It was originally such men as Ernie Pyle as well as the capable line officers themselves who stressed the importance of the capacity for developing group spirit in combat, the strong sense of belonging, and the associated desire not to let the others down.

Ludwig's mention of: the capacity for faith in leadership only brings out what was stressed in discussing environment — that one of the most important parts of group morale was based in the leadership of the unit. The capacity for faith in leadership depends not only on the leaders themselves but in the individual directly correlated with his previous good and consistent experiences with his parent, or parent-substitutes and persons in authority.

The convictions of the American soldier about what he was fighting for and what he was fighting against, at first glance would seem to have been surprisingly few and disappointing. In a chief part this would appear to have been due to the lack of political education of the soldier. The question which Brigadier Reese once raised was whether superficial education on such matters at a late date in the army, especially for the purpose of stirring guilt, were not *artificially or temporarily* stirred feelings and motivations, sharply to be distinguished from strong, deep, and often inarticulate convictions.

It will be noted that the authors mentioned did not speak of bravery or courage or the capacity for such attitudes. This is probably because it was found that the "bravest" combat men *always* experienced or were reacting to varying degrees of fear.

Now let us take the obverse, the unfavorable external psychological factors. The soldiers with combat neuroses in their confusional states, or in conversations express these more forcibly.

Over and over again one heard of broken promises by superiors. Equally emphasized factors were the following: regimentation and discipline which didn't make sense or was regarded as unduly oppressive. Excessive chances or inadequate safeguards and unusual losses were stressed. Excessive fatigue and lack of relief

from sustained combat tension and excitement were also stressed. Finally, poor group morale again was spoken of as playing the most important role. The broken promises were more often those implied rather than expressed. The combat soldier, who was naturally very concerned about the future, was particularly prone to sense and seize upon intangibles as well as the tangible spoken word. Lack of consistency in direction and leadership produces the same disappointments as broken promises. Of course, some inconsistencies were due to changes which arose from unexpected turns in the tactical situation. Then too, the uncertainty and suspense, which frequently developed, produced a state of indecision and rumor sensitivity in the minds of the soldiers themselves which helped create the appearance of inconsistency when it did not in fact exist.

It must be said here that the medical corps, too, was guilty of its share of broken promises and inconsistencies. The patient in a hospital was particularly susceptible to and did seize upon any ambivalences, intimations or statements which have to do with his disposition, prognosis, and treatment and perforce use these in support of his illness.

The effect of discipline on a group could probably be best measured by the amount of resentment generated in all during its employment and by the future effects, specifically the future willingness of the same group and individuals to perform under hardship. Unfortunately, the "favorable" effects of discipline at the moment are more easy to assess and study than its future repercussions and effects. There is, however, a wrong kind of discipline and regimentation as well as helpful forms.

The problems of consistency and discipline were chiefly problems for command. The rapid growth of our citizens army and the democratization of leadership without the proper time for the development of selection standards for officers was probably responsible for some of these difficulties.

Unnecessary risks and untenable positions apparently were most often taken by new platoon and company officers obsessed with the need to prove themselves, who went to an extreme so that foolhardiness was mistaken for courage. These situations created special problems for the

combat soldiers. Such actions were not only regarded as folly by the veteran foot-slogger but operated to threaten and undermine the feelings of personal invulnerability against destruction, which he might ordinarily have maintained.

Excessive fatigue and exceedingly prolonged combat tensions and emotions not only helped produce combat saturation but also tended to lower the thresholds against anxiety, and confusion, or exhausted themselves in depression and apathy. Against this, of course, the best safeguards were the interval rest periods for groups or individuals. I am reminded here of the statement of a Russian colonel of a medical commission who, visited us. He said, while stressing prophylaxis against combat exhaustion — "The line officer in our army makes a *medical decision* as to who should be sent back to an 'activity center' to prevent exhaustion". Perhaps, too, a tour of combat duty, like a tour of flight duty, was a necessary answer as a way of preventing relatively irreversible combat saturation.

The morale of a unit undoubtedly plays the most important part in maintaining or not maintaining a soldier in combat. The interdependence which ordinarily exists between members of a group is markedly enhanced under the stresses of external dangers such as threat of capture, injury or death. It is for this reason that the rapports established with these soldiers in hospitals at the time were so powerful and became such a strong fulcrum in moving the individual toward recovery. Having achieved this social dependence and interdependence such an individual seemed much more ready to turn to the army doctor and ward man for help in his neurotic illness. It is because of the need for interdependence in the combat units that time invested in just living together and practicing together was so well spent in the original training of divisions, over and above the value in the training in combat and weapons techniques. Men had to learn not only how to fight but how to live together while fighting. The home front morale, too, as had been mentioned, interpenetrated into the morale of a unit. The latter was difficult to evaluate because there was so much individual tendency to project difficulties upon those in a rear or upon another echelon,

upon civilians, and upon members of one's own family.

Ludwig's and Grinker's studies of what helped men fight also gave us some idea of the types of neurotic problems are most likely to interfere with arduous soldiering.

Any strong neurotic conflicts which interfere with the ordinary sense of pride, sense of duty, feelings of belonging, development of convictions and sense of invulnerability or an equal chance — might interfere with combat efficiency.

Then there are those men in whom strong feelings of inadequacy and inferiority had interfered with the development of much strong sense of pride. There are those whose seclusiveness, anti-social or asocial tendencies prevent the development of any important sense of belonging. The sense of duty is most absent in the psychopaths whose social conscience was never good. Then there were those made temporarily very resentful and bitter by either long sustained poor group morale or what they regard as unjust treatment. Those individuals whose indecisions and ambivalences are inordinately strong (certain obsessives) might be incapacitated in the development of any sets of convictions and directions. Incidentally, convictions were often feelings or motives which could not be expressed, which might still have existed. Those whose negativism and rebelliousness were great, were led to a sharp rejection either of the convictions and premises on which our participation in this war was based, or a rejection of the leaders, faith in whom sometimes gave the equivalent of such convictions. Those neurotic individuals who regarded the world as a constantly dangerous place for one's physical health, even in peacetime, were hardly likely to have any sense of safety or personal infallibility during combat. They felt that with each shell their time *had* come.

Grinker, in a rather recent article, "War Neuroses in Flying Personnel", attempted to define more completely the type of neurotic adjustment which is most likely to break down in combat. Like Ludwig, he attempts to define individual types on the basis of their ability to fight or to break down.

But later studies, including those of Glass in Italy and Ludwig's, also, tended to show that

a number of severely neurotic individuals had done combat for considerable periods of time.

From all that has been said it would seem that the presence or absence of neurosis alone is not the prime determinant of whether a man can do long combat or not. This is especially important when one realizes that there is no definite threshold, anxiety tolerance in a particular individual or individuals. Psychoneurotic individuals like others can tolerate large amounts of anxiety within themselves and keep going provided the satisfactions they could achieve in combat were sufficiently great. And often the psychoneurotic individual felt greater pride in succeeding in an arduous task or felt greater satisfaction in being able to actually participate in a group or be a leader in any sense, than might another individual. Perhaps it was for this reason that some of the most tremendously anxious individuals the writer saw were the psychoneurotics, many of whom were described as having been just as anxious as on admission to hospital, for many months of combat. Perhaps too, some chronically anxious individuals had learned to erotize some of their free floating anxieties in civilian life and thus were able to experience larger amounts of it without breakdown. By contrast to these were many young line officers who had to be evacuated although they showed and felt practically no anxieties whatsoever. Examination revealed that in this group it was not a question of lack of tolerance to anxiety. The question was otherwise. These were overly-competitive men who had thrown themselves into the competitive struggle of becoming an officer or of reaching higher grade because their whole motivation was to get ahead of the next fellow. In combat where this became a negligible motive especially when the tactical situation was such that the emphasis had to be on cooperation with others — including their sergeants and footsloggers — they often lost all interest or “froze.” It was this type of officer who is chiefly responsible for a current subject of debate “Caste System or not in the Army”. What the average American soldier resented most in officers aside from his tendency to project upon officers the difficulties of the situation, was the existence of extra privileges without associated extra responsibilities and hardships. It was these offi-

cers who needed so much to show their special position and that they had gotten ahead of the next fellow who flaunted extra privilege, nor did they show any mature responsibility and understanding.

More specific information about the individual who is reacting to the traumatic situation, and his particular personality structures, may perhaps also be learned by studying some of the commoner combat exhaustion syndromes. There was, for example, a whole group of cases who broke down with acute depressions in combat, especially when some buddy, or the leader in the group was killed. The papers by Grinker Leon Saul would seem to suggest that some of these fall in the class of individuals who are not able to handle, or freely express, their own hostilities, especially toward sibling substitutes, because of the great amount of associated guilt. It is interesting that in a number of cases which the writer saw it was possible to learn that a quarrel with the particular buddy or leader involved had occurred just before his death.

It was the author's feeling that the numerous so-called schizoid combat exhaustion cases similar to those described recently by Swank were the type of case which had similar dynamics. These men appeared schizoid to us because their affect seemed flattened and they seemed all “washed out”. Actually, they would seem to be more properly described as deep apathies. However, every action and observation of these men over a period of time seemed to suggest that the apathy was a defense against much rage, against the whole environment, over their long combat predicament. They seemed to differ from the acute depressions in that they may have suffered acute minor depressions prior to the apathy, and that their guilt had not been stirred because of a conflict about one particular individual in their immediate environment on whom the depressed individuals seemed to have been unconsciously dependent. Like the depressions, however, they were very happy to go to limited duty very quickly in order to carry on with their share and often had to be forced to go to the rear from the front because their motivation for combat out of guilt, was still relatively good.

It flows from all that is said here, that the *treatment of the environmental factors* which

make for emotional breakdowns in soldiers reduces itself chiefly to problems in prophylaxes. As such they are chiefly the problems of command. Regardless of responsibility, command would need the help not only of all its leaders and personnel but also a psychiatrist in dealing with or preventing unhealthy situations. When called upon to give advice, the command psychiatrist must not only be sound in his judgment, but must be able to deal with the situation in a secure and calm fashion. Brigadier Reese of the British Army once said that an army or divisional psychiatrist must be not so much a good theoretician as an eminently practical and capable individual with common sense. What I believe he means to say is that such a psychiatrist had to feel secure as a person and psychiatrist, in dealing with line or professional soldier administrators and others, and that he must be able to speak with conviction, yet without prejudicing the issues of his future influence. To those who say that the psychiatrist would then be usurping the functions of command, it may be answered, first, that he is part of command or will be and that he speaks (ordinarily) when consulted for advice. In this respect he resembles the sanitary officer whose advice is always sought in problems of prophylaxis against contagious diseases. Recent army directive which places the responsibility for psychiatric casualties, upon command, move us even more in this direction.

In the prophylactic work, the effects of hospitals and reinforcement depots on soldiers other than those with neurotic breakdowns came in for a good deal of discussion. Two unfavorable factors which operated in these places were the uncertainty of the situation and the interruption of the feelings of belonging to one's unit. Greater speed in decision and disposition and less moving about in hospitals and reinforcement depots helped reduce some of the uncertainty inherent in these situations. Interruption of unit ties was somewhat alleviated by meeting old buddies. Divisional clubs, established and maintained even in the hospitals and especially in the depots, have been suggested. The divisional and battalion traditions and ties were rich, especially

in the older and tried units, and were well worth maintaining and stressing.

The soldiers sense of invulnerability could be threatened by wounding or injury. Hospital rehabilitation programs helped to overcome this threat. Other methods, perhaps, exist. Some barriers which existed between garrison troops and combat also operated in hospitals and depots. As former combat men began to seep into these places, this gap became somewhat reduced. The differences in the life are often used as a method of projecting one's bad morale and even annoyances with the home front upon the garrison troops. But, of course, the most important reason for the bad feeling by combat troops toward garrison troops was based on the strong feeling that the hazards of combat being what they are, others too should share in them. Everyone was impressed by the strong insistence upon equalitarisms in the face of the danger of death and wounding. Those officers who understood this, won boundless support. This natural envy of the more favorably situated troops was so great that it became practically impossible to rehabilitate individuals suffering from combat exhaustion *for further combat* once they reached the rear areas.

Discussions of treatment of the combat exhaustion cases have been so exhaustive as to make further remarks here redundant. However, most discussions of the acute combat exhaustion cases have been confined chiefly to the discharge of the store of the pent-up feelings, mostly anxiety, to the neglect of the discussion of the techniques of therapy which had to do with the restoration of motivation — which actually involved rebuilding the faith in the environment where it had broken down, or faith of the individual in himself. This restoration of motivation whether it was motivation for further combat or limited duty in the army, must take into account all of the above mentioned factors, internal or external, which operated in the particular individual. Where marked regression to a psychotic, or benign stuporous state occurred, the individual, in addition certainly needed a definite amount of gratification or acceptable mothering at the regressed level before reintegration to and acceptance of higher level of adjustment oc-

curred. One advantage of the small doses of insulin which were almost a routine part of the treatment or the modified Dauerschlaf, seemed to be the acceptable mothering, including special feeding, which went with it. But psychotherapy and the understanding of the individual and his needs were still the prime factors in any treatment.

In conclusion, we have come a long way from early analysts and individuals who said that there will always be wars because men are by nature warlike and need to discharge their aggressive or death instinct in combat. Today we see a picture of individuals (among the American troops but also among other of the combatants) who were not motivated to do combat but who are yet willing to face death and other hazards out of necessity at first, and later not to let others and themselves down. If men are willing to face such hazards under such circumstances then the human individual is flexible indeed. It is not any "unresisting bad" human nature which should stand in the way of the difficult adjustments in peacetime of the atomic age. And particularly do we find that the things men live by, spring from the group he lives in or feels he belongs to. For the group perhaps he can forego more and more, for the sake of whatever advantage may accrue (such as social and economic security), or failing this, out of necessity.

DIAGNOSIS AND TREATMENT OF BLEPHAROPTOSIS

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Blepharoptosis is an abnormal drooping of either or both upper eyelids and may be a true ptosis or a pseudo-ptosis. The latter may be caused by an abnormal widening of the opposite palpebral fissure, or it may be due to a disease or increased weight of the lid on the side of the ptosis caused by trachomatous infiltration, lid tumors, spasm of the orbicularis muscle or neurofibromatosis. True ptosis indicates a weakness of the levator and smooth muscle due to a progressive muscular dystrophy, or peripheral or central nervous disorders. Only

the subject of true ptosis will be elaborated upon. It may be congenital, acquired or hereditary in origin, unilateral or bilateral, partial or complete.

Acquired ptosis may be due to a lesion of the nervous system, disease of the upper lid or trauma. The chief causes of acquired ptosis are intoxications; acute or subacute infectious diseases; syphilis of the third nerve roots, third nerve nucleus, the supranuclear centers or the cortical centers; lesions of the brain substance, such as hemorrhage, abscess formation or tumor; various nervous system diseases, such as myasthenia gravis or multiple neuritis. In acquired ptosis, one should delay surgical interference until all other means of treatment have failed to effect a cure. One must attempt to avoid corneal exposure or ulceration, as well as diplopia.

The etiology of congenital ptosis is either a developmental defect of the levator muscle or a lesion of the central nervous system. Hereditary ptosis may manifest itself at birth (congenital type) or later in life (adult and juvenile types). The non-congenital, or late developing, type of hereditary ptosis is rare. Operations for ptosis comprise less than one per cent of all surgical procedures on the eye.

Congenital ptosis may be accompanied or associated with the following clinical anomalies: weakness of the superior rectus muscle, weakness of the superior rectus and the inferior oblique muscle, esotropia or exotropia, Duane's retraction syndrom (weakness or fibrosis of the external rectus muscle), and partial or complete external ophthalmoplegia. It may also be associated with epicanthus, blepharophimosis, an abnormal inner canthus, or an abnormal innervation of the levator muscle, producing jaw-winking (Marcus Gunn phenomenon).

Before any attempt at surgical correction is made, the following data should be obtained: (1) The vertical width of the palpebral fissure with eyes straight ahead, with eyes elevated, and with eyes depressed. The measurements should be compared with those of the patient when employing the aid of the frontalis muscles, arching his brows, corrugating his forehead, with the head thrown back, and also with the head level and the brows depressed by the fingers of the observer. By these measurements, one may ascertain the true strength of elevator

power of the muscles of the upper eyelids when acting alone. (2) The length of the palpebral fissures horizontally measured from the angle of the external canthus by tangent and marginal measurements. (3) The extraocular motility of each eye, especially that of the superior rectus muscle. (4) Exophthalmometer reading. (5) the sensibility of the cornea and its ability to withstand exposure. (6) The effect of cocaine on the smooth muscle of the lid. (7) The vision of the two eyes and the presence of fusion, diplopia or amblyopia.

If a resection of the levator muscle is contemplated, the surgeon must determine, if possible, the anatomic condition of this muscle. If the levator action is entirely absent, it may not be wise to attempt a resection of the levator, although Blaskowicz and Lindner are of the opinion that some improvement will result in such cases. If the frontalis muscle is kept from acting by pressure on same, and the fissure is widened or the upper lid fold becomes more prominent in upward gaze, one can presume that there is action of the levator. If the ptosis is accompanied by a weak superior rectus muscle, the levator is usually poorly developed or weak. If a few drops of cocaine are instilled and the fissure becomes wider, one may presume the levator to be present.

A study of the extraocular muscles should be made in all cases, as there is often a weakness of the elevators of the globe in association with ptosis. Such a hypotropia should first be remedied before any surgical correction of the ptosis is attempted, especially if one contemplates a utilization of the superior rectus muscle to lift the ptosed lid. If the patient cannot roll his cornea upwards under cover of the upper lid during sleep, an exposure keratitis with ulceration and loss of the eye may result. Any exotropia or esotropia should be operated upon first before ptosis surgery is done.

One should note the position of the upper lid fold of each eye before operation, so that the new lid fold may be placed in its proper place at time of operation. If no lid fold is present, one may presume an absence of levator muscle power. Measurement of the vertical width of the tarsus should be made, so that one may estimate the amount of tarsus that may be safely resected. From 1.5 to 3 mm. of the tarsus must be left

in the midline to preserve the normal arch of the upper lid margin.

If good vision in each eye is present before operation it becomes necessary to employ a ptosis operation which will least likely disturb binocular vision. If diplopia is present before operation when the ptosed lid is elevated, an attempt should be made to correct same before the ptosis surgery. If amblyopia of the ptosed eye is present, the danger of disturbing fusion or of producing a postoperative diplopia is negligible. The tactile sensibility of the cornea should be noted, for if the cornea is anesthetic one can almost be certain that uncovering the cornea will sooner or later result in a neuroparalytic keratitis, with its serious consequences.

Surgical Technique and Procedures.—The fact that so many techniques have been advocated and elaborated upon indicates the unsatisfactory results which may follow even in the best of hands. Many improvements have been tried, although most surgeons are limited in their opportunity to do many operations due to the fact that the condition is relatively rare. The various operations will be elaborated upon by grouping them under the specific class in which they fall.

1. *The removal of skin or of a full thickness of the eyelid* is the most simple procedure, but is indicated only when the skin is redundant. Large pieces of skin have been removed from the upper lids for use as free grafts without producing any permanent shortening of the upper lid or resulting in a lagophthalmos. However, in most ptosis cases there is usually no excess of skin, but usually a scarcity. The skin can be made adherent to the underlying tissues in the position of the normal crease with an occasional cosmetic improvement.

The technique is simple and consists of marking out the necessary amount of skin, excising within the thin skin areas of the lid, and avoiding the inner canthal region. No lagophthalmos should result afterwards, as this technique should never be expected to correct a real ptosis due to a weakness of the levator and smooth muscles of the lid. The production of deep cicatricial bands by traumatic surgery, infection or deep sutures, so that there is an adhesion between the upper lid and brow, is not good surgery. Better results may be accomplished in suitable

cases by levator muscle and tarsal resection. In trachomatous cases, one may consider a partial tarsus excision.

2. *Adhesion between the frontalis muscle and the upper lid*, although easy of accomplishment, is not good surgery. It leads to a straight upward lid pull, and accentuates the already present smooth lid effect. The implantation of deep long sutures, fascia lata and buried strips of epidermis is open to serious objections. If all the elevators of the globe and lid are paralyzed, it may be necessary to use the orbicularis fibers. While many such operations probably constitute the type of surgery most frequently performed, the end results are usually far from satisfactory.

3. *Transplantation of a part of the superior rectus muscle to the lid* to permit the use of the elevating power of the superior rectus and inferior oblique as devised by Motais. This operation is advisable when the levator and smooth muscles are practically inactive. A certain indication would be when the palpebral fissure is actually narrower on upward than on downward gaze. Most surgeons insist that the superior rectus action be strong, yet it may also be successful when the superior rectus is partially paralyzed providing there is no hypotropia and the inferior oblique is normal. If both the superior rectus and inferior oblique muscles are paralyzed, this operation is not indicated. It is usually contraindicated in unilateral cases, as there exists the danger of producing a post-operative hypotropia and diplopia. If the cornea is anesthetic, some complications may arise, as in sleep the lower part of the cornea is always exposed following this type of surgery.

However, when successfully performed, it does provide for the synchronous movement of the upper lid with the globe in looking up and down. Good elevation of the lid is secured, and a good lid fold develops. An important criticism of this operation is the resultant notching of the upper lid, which may necessitate a graduated tarsectomy at the time of the original surgery or later. Another important reason for failure is that the sutures employed in attaching the tongue of superior rectus muscle to the tarsus may pull out, or the adhesions produced between the upper lid and the globe pull out or become stretched. If the entire width of superior rectus is attached to the lid, without

severing its tendinous attachment to the globe, a symblepharon with entropion and distichiasis results. The use of a fascia lata sling attached to each end of the tarsus and running under the superior rectus muscle has come into favor in recent years.

Diplopia may result if the superior rectus is weakened too much. However, if only the middle third of the muscle is used, the small amount of diplopia produced will not be annoying. A disturbance in the co-ordination of the act of closure of the lids results, and the globe is prevented from rolling up normally. However, the innervation, origin, and course of the muscle fibers of the levator and superior rectus are the same so that no re-education is required for the new function of the muscle.

The author believes that the easiest approach for the Motais operation is through the conjunctiva, but Kirby's modification of approaching through the skin, although much more difficult, allows for much more accuracy in suturing the tongue to the tarsus under direct inspection.

4. *The resection and advancement of the levator and smooth muscle of the lid and resection of the tarsus*. In cases of partial and almost complete ptosis, one should attempt to improve the remaining function of the levator and smooth muscle of the upper lid. The method of utilizing and developing the partial function of the levator and smooth muscle of the upper lid was popularized by de Blaskowics. The author is most partial to this type of surgery, and believes it gives the best results in properly chosen cases. The technique, although not simple, can be easily learned and will certainly be well worth the effort.

The technique of resection and advancement of the levator and smooth muscle of the lid with or without resection of the tarsus: Local anesthesia in patients 12 years and older consists of novocaine HCl 2% solution infiltration in the upper conjunctival fornix and skin of the upper lid. As a rule, 1 mm. of tarsus resection and 2 mm. of muscle resection will result in a correction of 1 mm. of ptosis. Having accurately measured the amount of ptosis present, one can determine beforehand the amount of resection of tarsus and muscle that will be necessary. One should be generous in the amount of resection

made, as the tissues may be stretched on everting the lid.

The lid is doubly everted over a Desmarres lid retractor and curvilinear incisions made with a sharp scalpel or cataract knife along the everted conjunctiva at the upper border of the tarsus. After the line of cleavage is found, the conjunctiva is dissected upward by sharp scissors' dissection for a distance of 10 to 12 mm. Three double armed black 4-0 twisted silk sutures are inserted at the cut conjunctival edge, from outside inwards and can then be used to hold the conjunctiva out of the way.

A second curvilinear incision is made parallel to the first through the tarsus to the orbicularis. Three white 4-0 double armed linen sutures are now inserted through the levator muscle about 3mm. upwards from the incision. They are used as traction sutures. Traction on these sutures will cause the wound to gape and the second plane of dissection is easily found. With a scissors dissection the voluntary and smooth muscle band is easily dissected upwards 15 to 18 mm.

Three fold sutures may or may not be used. Their use results in the formation of a nice lid fold. They consist of three black silk double armed 4-0 sutures inserted from outwards inwards. 3 to 4 mm. above the contemplated line of muscle resection. They are brought through the upper lid and loosely tied over rubber pegs or pearl buttons.

The three original doubled armed conjunctival smooth muscle band about 2 mm. above the predetermined line of resection. The muscle band sutures are now brought through the levator and is resected at the required distance, care being taken not to cut the sutures.

The predetermined amount of tarsus is now excised with a scissors. The three doubled armed sutures running through conjunctiva, levator and smooth muscle are brought through the skin just above the cut tarsal edge, usually about 5 mm. above the lid margin, and tied over rubber pegs or pearl buttons. These sutures should not be tied too tight, as there may be a skin necrosis from pressure if the tissues become too edematous. The three-fold sutures are now tightened. The globe is covered with vaseline and the three lower conjunctival and muscle sutures are brought down over the cheek and fastened with

adhesive tape, thereby adequately covering the eye without any fear of corneal drying or exposure. A simple eye pad is applied.

Dressings are made daily. At first, there may be some edema of the tissues and the ptosis appears more marked. However, this disappears in a few days and by the second week the full effect of the operation becomes apparent. The results may be more gratifying in cases of partial ptosis.

SUMMARY

Ptosis or drooping of the upper lid may be corrected surgically. The author favors improvement of the function of the levator and smooth muscle of the upper lid, in cases in which this is partially or even slightly present. When there is no function of the levator or smooth muscle present, transplantation of a portion of the function of the superior rectus is employed. This procedure may also be recommended when the superior rectus is paralyzed and the inferior oblique is active and no hypotropia is present. In the condition of paralysis of elevation, when the levator and smooth muscle in addition to the superior rectus and the inferior oblique are all paralyzed and a hypotropia is present, one must resort to advancement and resection of the superior rectus and inferior oblique accompanied by a formation of symblepharon between the superior rectus and lid, or by the vicarious use of the frontalis muscle for final lid elevation.
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PERIODIC PHYSICAL EXAMINATIONS IN APPARENTLY WELL WOMEN

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The idea of periodic physical examinations in apparently well individuals is not new, and has long had the official approval of the American Medical Association. In 1922, by resolution of the House of Delegates, the Council on Health and Public Instruction was authorized to prepare forms suitable for the use of practitioners of medicine in the making of periodic health ex-

This paper was accomplished by the cooperation of all of the women physicians who have participated in the work of the Cancer Prevention Clinic, and with the especial assistance of Doctors Austin, Parsons, Phillips, Ortmyer, and Stenhouse.

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aminations. At subsequent meetings in San Francisco in 1923, and in Chicago in 1924, further resolutions were passed urging:

- 1st, that State and County Medical Societies, hospitals, and medical schools prepare their members, associates and students to undertake periodic health examinations.
- 2nd, that it be a paid service, except in case of the indigent, and
- 3rd, that the family physician should continue to be the most important factor in this new field of the prevention of sickness.

It is a well known fact that infant mortality rates have been reduced through well baby examinations and immunizations; that tuberculosis has been diagnosed early and successfully treated in thousands of persons because of routine chest x-rays made of school age children who had positive Mantoux tests; and that tremendous strides have been made in the control of syphilis by routine blood serology of apparently well persons.

More recently the value of early detection of cancer by painstaking examinations of apparently well individuals has caught the attention of both the medical profession and the lay public. It is generally agreed that, by detecting and adequately treating early cancer or precancerous conditions, many tragic cancer deaths could be prevented.

In December of 1945, at the Chicago meeting of the House of Delegates of the American Medical Association, a five way program proposed by the Service Division of the American Cancer Society was approved. This plan covers all functions concerning the cancer patient, one of which is the establishment of cancer detection, cancer prevention or well person clinics, designed to detect abnormalities not producing symptoms sufficient to send the patient to the doctor.

Dr. Elise S. L'Esperance, in 1937, pioneered by establishing the first clinic for complete physical examinations of well persons, with special reference to cancer, at the New York Infirmary for Women and Children. In 1938 a research clinic was established at the Woman's Medical College in Philadelphia by Doctors Macfarlane, Sturgis and Fetterman, to determine the value of periodic pelvic examinations in detecting early cancer of the female pelvic organs.

Stimulated by the success of these ventures, and wishing to establish a similar service in

Chicago, the Executive Committee of the Field Army of the American Cancer Society, with Doctor John Wolfer as Chairman and Mrs. Arthur I. Edison as State Commander, requested me to try to interest a group of women doctors in the project.

Before the clinic was established, the plan was presented to and approved by the Council of the Chicago Medical Society. The president appointed a Committee of five members with Doctor James P. Simonds as Chairman, to act in an advisory capacity to the proposed clinic. This committee has remained active, and has been invaluable in planning the medical policies and procedures.

Space was donated by the Board of the Women and Children's Hospital, and the Cancer Prevention Clinic was opened on May 13, 1943. Patient appointments were made through the Field Army office, and Medical Social workers, nurses, clerical and technical help were supplied by the Field Army. According to the newly formulated Service Program of the American Cancer Society, which the American Medical Association has approved, the Society has agreed not to own or operate any clinics, laboratory, hospital or other facilities for the care of Cancer patients. The clinic is therefore, in the process of setting up a separate organization, but will continue to maintain close cooperation with the Illinois Division of the American Cancer Society.

The purpose of the clinic is to provide complete, periodic, physical examinations for a limited number of apparently well women, with a view to early detection of cancer or precancerous lesions, and to educate the examinees to the value of such examinations as a positive health measure. Patients are not accepted for examinations who are under treatment for cancer. No treatments of any kind are given by the clinic. All examinees who have any abnormality, whether related to cancer or not, are told of the nature of the condition, and urged to report to their family physician at once for further diagnosis and treatment.

Each patient attends the clinic on two occasions. On the first visit a careful, detailed, medical and social history is taken, and a complete examination is made. Routine laboratory work includes urinalysis, red and white counts, hemoglobin, blood smear, blood serology, as well

as, cervical and urethral smears, and a Papanicolaou vaginal smear. A fluoroscopic examination of the chest is made on all patients. Those who can, pay a laboratory fee of \$5, but anyone who cannot afford the fee is examined without charge.

On the second visit major pathology is re-investigated by one or more consultants who are specialists in the various medical fields. A verbal report is given to the examinee, and if any abnormality is found she is advised to consult her family physician regarding care. She is told that her physician may obtain a report of the examination upon request, if he so desires. Since a large percentage of the examinees have been found to have physical abnormalities in no way related to cancer, perhaps the title of Health Maintenance Clinics, which has been adopted elsewhere, might be a better name.

Over three thousand apparently well women have been examined by the clinic to date. The first two thousand records have been carefully reviewed. Table 1 shows the ages of this group: seven were nineteen years of age or under, and twenty-three were seventy years or older. The largest number, seven hundred and thirty-six, fall in the forty to forty-nine year group, and the next largest number, five hundred and seventy-three, in the thirty to thirty-nine year group, with four hundred and nine from fifty to fifty-nine years inclusive.

TABLE 1
Age of 2000 Examinees
Cancer Prevention Clinic

Years	Number of Patients
10-19	7
20-29	109
30-39	573
40-49	736
50-59	409
60-69	143
Over 70	23
Total	2000

Table 2 shows the occupations, and it will be noted that most of the examinees were housewives, 1301, and the next largest group 305 were office workers — with 65 teachers, 49 salesladies, 37 factory workers, 16 nurses and 14 unemployed. 101 fell into groupings of ten or less, while the remaining 112 did not give their occupations.

TABLE 2
Occupations of 2000 Examinees

Housewife	1301
Office Worker	305
Factory Worker	37
Saleslady	49
Teacher	65
Nurse	16
Unemployed	14
Others	101
Not Given	112
Total	2000

Table 3 gives the disposition of the examinees. In 494 instances there was either no pathology or it was considered so minimal that medical care was indicated. 1431 were referred to their own physicians for one reason or another, and 75 were referred to free or part-pay clinics as they were unable to finance private care. In some instances, because of the dislocation of both medical and lay persons due to the war, the examinee had no local medical connection. When this was true the medical social worker gave her two or three names from a panel of physicians selected by a Committee of the Chicago Medical Society.

TABLE 3
Disposition of Examinees

Referred to Own Physician	1431
Referred to a Clinic	75
Discharged — No pathology	494
Total	2000

Something over six-percent of all cancer deaths are said to be from primary lesions of the skin, lips or oral cavity. These areas were carefully examined, and all doubtful lesions were referred to the dermatology consultant. The following tables show the essential findings.

TABLE 4

Skin Lesions

Those definitely malignant clinically	15
Those suggestively malignant or pre-malignant	32
Those recently changed in size, color or had become sensitive	11
Those subject to friction or irritation	7
Miscellaneous tumors which needed investigation	42
Pigmented nevi which needed investigation	25

Table 5 shows additional skin findings which included 31 senile warts; 20 lipomas, 19 senile angiomas, 16 verrucae vulgaris, 14 sebaceous cysts and 10 lichen simplex.

TABLE 5

Other Skin Lesions	
Seborrheic Keratosis (senile Wart)	31
Acne Vulgaris	7
Verruca Vulgaris	16
Lichen Simplex	10
Sebaceous Cysts	14
Fibromas	9
Psoriasis	7
Nail Changes	6
Lipomas	20
Senile Angiomas	19
Pruritis ani et vulvae	13

One hundred and twenty-four women complained of breast pain (Table 6), and 56 reported masses. On examinations lumps were found in 52 instances, and 29 indefinite indurations was observed. In 33 of these biopsies were requested. 28 reports were returned to the clinic by the doctors who made the biopsies, and of these 18 were benign and 10 malignant. Mastectomy had been done before we saw the examinee in 26 instances and 43 examinees had scars from previous biopsies. This is significant evidence that many doctors are on the alert for cancer of the breast.

TABLE 6
Complaints and Findings in
Breast Examinations

Complaints	
Pain in the breast	124
Lump in the breast	56
Findings	
Lumps in the breast	52
Indefinite induration	29
Biopsy Requested	
Biopsy Reported	
Benign	18
Malignant	10
Previous Surgery	
Mastectomy	26
Simple Incision	43

There were 420 complaints referable to the pelvis. A number of these were multiple in the same individual. The most common complaint was vaginal discharge (115), and the next most frequent complaint was low abdominal or pelvic pain (105). 57 complained of profuse menses

TABLE 7
Pelvic Symptoms

Pain	
Low abdominal or pelvic	105
Backache	52
Profuse Menses	57
Irregular Menses	56
Vaginal Discharge	115
Tumor Suspected	35

56 of irregular menstrual periods and 35 thought they had "a tumor". Clinically the findings of the external genitalia (Table 8) were Kraurosis in 3 cases. There were 78 post-menopausal pruritis and vaginitis, 44 cystoceles with symptoms, 19 urethral caruncles, and 11 Bartholin cysts.

TABLE 8
Pelvic Findings

External Genitalia	
Kraurosis	3
Senile Pruritis and Vaginitis	78
Sebaceous Cyst of Labia	6
Lichenification	6
Enlarged Bartholin Gland	11
Urethral Caruncle	19
Vaginal Cyst	5
Cystocele with Symptoms	44

The cervix was lacerated or hypertrophied in 155 instances, and 272 erosions were seen. 34 examinees had trichomonas with symptoms, and there were 60 polyps.

The corpus was retroverted in 102 instances, and irregular masses suggestive of fibroids were palpated in 106. In 71 individuals adnexal masses were observed, 28 of which were on the right side, 31 on the left, and 12 bilateral.

TABLE 9
Pelvic Findings

Cervix	
Lacerated or Hypertrophied	155
Erosions	272
Polyps	60
Trichomonas with Symptoms	34
Corpus	
Retroverted	102
Nodular Enlargement (fibroid)	106
Prolapse with Symptoms	26
Adnexal Mass or Enlarged Ovary	
Right Side	28
Left Side	31
Bilateral	12

Fifteen cervical biopsies were requested, and no malignancies were found in those from whom we have heard. There were two adeno-carcinomas reported, one early and one far advanced. Since biopsies are not done in the clinic, and since we often do not know to whom the patient goes for diagnosis and treatment, there are no doubt more malignancies than are reported.

One thousand nine hundred and forty-six of the two thousand examinees had fluoroscopic examinations of the chest. In 89 of these skeletal

variations, kyphosis and scoliosis, were noted.

Abnormal lung markings were recorded in 281 of the women examined; one third of these had parenchymal changes, 40% had increased broncho-vascular markings, 10% had mediastinal or diaphragmatic adhesions, the remaining had calcified densities. Wherever the fluoroscopic findings were doubtful, chest films were requested; no active pulmonary lesions were found in these follow-up films. In only one case was a metastatic lesion seen; in that patient a mastectomy had been performed for malignancy in 1942. No physical signs of this metastasis had been found.

Three hundred and eighteen of the women had abnormal cardiac silhouettes; of these 255 had cardiac enlargements, 51 had abnormalities of the aortic arch, 12 had pericardial adhesions, 214 of these were left heart enlargements.

In reviewing the histories one is impressed by the number who have symptoms referable to the gastro-intestinal tract. It is difficult to select the ones who should have extensive investigation of the G.I. tract. On the other hand it is a well known fact that moderately advanced carcinoma may exist without symptoms.

In order to collect data which might be helpful in solving this problem a study of the large bowel by digital rectal examination, proctoscopic examination and barium enema is now under way in 1000 "well" volunteers from the group of examinees of the prevention clinic. In the course of this study numerous incidental x-ray findings were seen which include such things as enlarged livers, kidneys, spleens, not found by routine physical examination; renal and gallbladder lithiasis unknown to the patient; calcified glands, tumors, as well as, bony deformities, arthritic changes and anomalies of the spine. This makes one wonder if routine flat plates of the abdomen, as well as, routine chest plates might not be revealing.

Slightly over one-half or 1012 of the first 2,000 persons who requested examinations at the Prevention Clinic reported one or more mem-

bers of their family with a cancer diagnosis. The rest requested examination because of lay education and publicity.

The public education on cancer control has gone ahead more rapidly than medical facilities have been provided. The clinic appointments are now for six months in advance. Health maintenance or Cancer prevention clinics have been opened in connection with Philadelphia's 5 medical schools; Pittsburgh, Los Angeles, San Francisco and Detroit have also established cancer prevention clinics. Most of the clinics do not do biopsies, and only a limited amount of diagnostic x-ray work, so they only have pre-emptive, not positive, evidence of cancer. The examinee is then referred to his or her own private physician or to a diagnostic clinic with recommendations for biopsy, cystoscopic examination or gastro-intestinal studies as the findings may indicate. This type of service is really no more or less than a screening examination designed particularly to rule out early visible cancer.

The American Medical Association and the American College of Surgeons have approved such clinics as valuable in cancer control, and an effort is being made to unify their procedures. There is a great potentiality for health education, health conservation, and service in such projects, but in order that they may be properly controlled they should all be under the vigilant supervision of the local County Medical Society.

This type of examination can be made by any well trained physician willing to take the trouble, or by a group of physicians with the assistance of a clinical and x-ray laboratory. Until such time as the cause of cancer is discovered, the early detection and adequate treatment by x-ray, radium and surgery offers the best means, at hand, to control malignant growths. If the public will submit to routine physical examination, and if physicians will conduct such examinations with painstaking care, cancer can be routed from its present position of second greatest killer in the United States.



Clinical Pathological Conference

PRESENTATION OF CASES

By

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CASE 1.—SYSTEMIC BLASTOMYCOSIS

A white youth, aged 20 years, entered St. Luke's Hospital in the care of Doctor N. C. Gilbert on September 29, 1945 and died on March 22, 1946. He had been in good health until March 1945 when he had an upper respiratory infection and stiffness of his neck. This was followed in about three weeks by a painful swelling about the right clavicle and later another swelling appeared over the dorsum of the right foot. He was in the hospital for about 12 days during which time these foci were incised and a dark red purulent exudate released. The foci never healed. They would close temporarily and then discharge a purulent exudate. A diagnosis of chronic osteomyelitis of the right clavicle was made and during the six months before admission to St. Luke's hospital he lost 30 pounds in weight.

When admitted his temperature was 103° F., pulse 128 per minute and blood pressure was 114 mm. mercury systolic and 58 mm. mercury diastolic. There was a chronic ulcer in the skin over the right clavicle and another was over the dorsum of the right foot. Lung signs suggested pulmonary tuberculosis. The leucocytes were 17,200 per cubic mm., the erythrocytes were 3,340,000 and the hemoglobin was 10 gms. per cent. Many examinations of the sputum failed to disclose acid-fast bacilli and exudates from

the ulcer near the right clavicle did not produce tuberculosis in a guinea pig. Biopsy tissues of the ulcer and cultures of the exudates demonstrated blastomycosis. Roentgen examinations demonstrated an infiltration of the left lung. The pleura of each lung was thickened. The sternal end of the right clavicle had the changes of a chronic osteomyelitis. He received potassium iodide, streptomycin, penicillin and radiation therapy. A retropharyngeal abscess was drained several times. The patient's fever continued septic, he gradually lost weight and strength and died March 22, 1946.

The postmortem examination included only the tissues of the trunk and extremities. The emaciated body weighed 95 pounds and was 173 cms. long. At the inner third of the right clavicle was an ulcer of the skin and deeper tissues 7.5 by 3.5 cms. A fistulous channel extended into the sternal end of the clavicle. On the dorsum of the right foot was a region of necrosis 1.5 by 2 cms. covered with dry exudate. The lesion at the inner end of the right clavicle extended into a pocket behind this bone and the upper end of the sternum, about 4 cms. in maximum diameter. It contained a thick purulent exudate and the outer portions of both the sternum and the clavicle were involved. A few scattered fibrous adhesions were between the right lung and the chest, but the left pleural space was obliterated completely by dense adhesions. An empyema pocket on the left side just above the diaphragm was 12 by 8 by 4 cms. and contained a thick purulent exudate. The parabronchial lymph nodes were large and together a mass 6.5 by 4 by 1.5 cms. The moderately consolidated right lung weighed 610 grams.



Case 1, Figure 1 — Photograph illustrating the blastomycosis of the right lung.

The visceral pleura was roughened by a few torn ends of fibrous tissue. Surfaces made by cutting frontally had many grey and grey red nodules, single and confluent, ranging to 1 cm. in diameter and comprised about 50 per cent of the lung parenchyma. The compressed left lung weighed 500 grams. The base of this lung had portions of the wall of the empyema pocket. This lung on surfaces made by cutting also was markedly consolidated by single and confluent nodules of grey tissue with some foci of necrosis. The fistulous channel to the right clavicle involved the bone and a sinus tract 8 mms. in diameter extended through the bone 4 cms. from the sterno-clavicular articulation and into the abscess pocket behind it.

A fistula extended from the lesion on the dorsum of the right foot into an abscess between the first and second metatarsal bones. The proximal end of the first metatarsal bone was involved. The prostate gland was 4 by 2.5 by 1.5 cms. and most of it was an abscess. There were only parenchymatous changes in the heart, liver and kidneys. The spleen weighed 175 grams, the liver 1675 grams. The other tissues had no significant changes.

The soft tissues about the right clavicle had large regions of caseation necrosis continuous with vascular fibroplastic chronic granulation tissues. Throughout these tissues were many

multinucleated giant cells with engulfed blastomyces. Many yeast forms were outside of the giant cells. The consolidated lung tissues had lesions of two kinds: 1) an acute exudative inflammation with many polynuclear leucocytes and 2) chronic granulation tissues in stages of organization and with giant cells containing blastomyces. The tissues about the abscess of the prostate and those around the sinus of the right foot were granulomatous and had giant cells with blastomyces.

Cultures of the exudates in the abscess behind the right clavicle, in the left empyema of the chest and in the abscess of the right foot yielded growths of blastomyces.

Comment.—Chronic blastomycosis of the lungs with metastatic lesions presents a clinical diag-



Case 1, Figure 2 — Photograph of the left lung illustrating its marked contraction and consolidation by blastomycosis. There was an empyema on this side, and along the left edge is a portion of the thickened parietal pleura.

nostic problem which may be confusing because the procedures used do not include those necessary for demonstrating the organism. When metastatic lesions occur and have progressed to the chronic ulcerative form in the patient, the clinician expects the laboratory service to determine the cause of the lesion by examinations of exudates submitted. The condition in which these exudates are submitted is important in determining the success or failure of the bacteriological studies. Some comments about the character of the ulceration should accompany the exudate material. As commonly practiced in

laboratory examinations, the exudates are examined in moist and unstained cover glass preparations with a drop of 10 per cent sodium or potassium hydroxide solution; in gram and methylene blue stained films; in films stained for acid fast bacilli or by some other technique. The medium used for the bacteriologic studies should be chosen with some reference as to the probable nature of the causal agent. Animal inoculations, usually the guinea pig, are used to test for the presence of pathogens. The control of these exudate studies is a biopsy through the margin of the ulcerative lesion. With blastomycosis the biopsy examination is important because the yeast organisms can be demonstrated readily in the granulation tissues. Guinea pigs are not readily infected with the exudates of blastomycosis. Cultures on blood agar, plain and dextrose agar and other suitable mediums yield colonies of a colorless mycelium. In tissues the blastomyces reproduce by budding.

CASE 2. — SACCULAR ANEURYSM OF THE CAROTID ARTERY

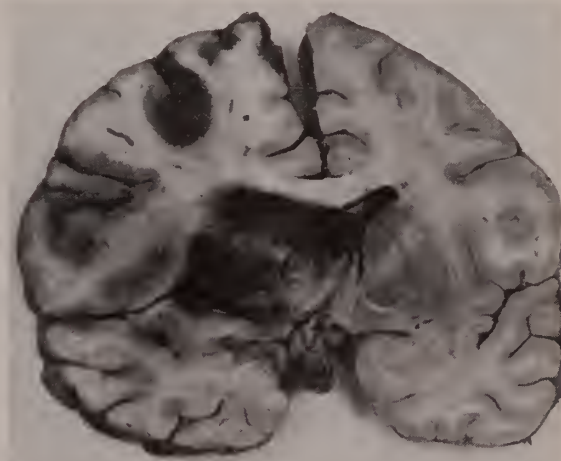
A white male aged 45 years entered St. Luke's Hospital on December 31, 1945 in the care of Doctor Robert Keeton because of pain in the back and shoulders. In April 1944 he had a sharp pain under his right shoulder which continued for six weeks and a year later he had weakness and swelling of the fingers of his left hand which disappeared and returned at intervals. A roentgen examination of his neck in September 1945 was said to disclose a compression fracture of the third and fourth cervical vertebrae. The blood had 4,460,000 erythrocytes and 8,800 leucocytes per c. m. The hemoglobin was 13.6 gms. per cent. The sedimentation rate and the chemical analysis of the blood were within the normal range. The Kahn reaction was negative. The physical examination demonstrated nothing unusual except a nodule 2 cms. in diameter in the right side of the neck just below the angle of the jaw. It was firm and pulsated. While this nodule was being examined, the patient suddenly fell back in bed and had choreiform movements of his right side, which became spastic and a spasticity of the right side developed. He responded only by opening his eyes. He became dyspneic, developed Cheyne-Stokes respirations and bilateral Babinski reflexes. He received oxygen and mild



Case 2, Figure 1 — Photograph of the aneurysm with thrombus of the right internal carotid artery, continuous below is the common carotid artery and to the right is the origin of the external carotid artery.

sedatives but never regained consciousness and died about 17 hours after the onset of coma.

The important changes demonstrated by the complete postmortem examination were in the neck and head structures. The superficial and deep tissues of the neck had no unusual changes. The linings of the right and left internal and deep jugular veins were smooth. There was a saccular aneurysm of the right internal carotid



Case 2, Figure 2 — Photograph illustrating the hemorrhagic infarcts of the basal ganglia and cortex of the brain. There is a small hemorrhage into the lateral ventricle.

artery just beyond the bifurcation of the common carotid artery, 1.5 by 2.0 cms. A large recent thrombus extended into the lumen of the aneurysm but the channel of the right internal carotid artery beyond was patent to the base of the cranium. The thyroid gland weighed 45 grams and had several circumscribed regions of glandular hyperplasia. The other structures of the neck had no changes. There was no evidence of fracture, displacement or compression of the bodies of the cervical vertebrae or injury of the soft tissues. The superficial and deep tissues of the scalp were unchanged. The brain weighed 1640 grams. It was edematous, the convolutions were flattened, and the sulci narrow and shallow. On the inferior surface of the right frontal lobe of the brain 2 cms. from the central fissure was a soft hemorrhagic region 6.5 by 2.0 cms. that extended to within 2 cms. of the anterior pole of the right cerebral hemisphere. There was a small thrombus in the terminal portion of the right internal carotid artery and in the first portion of the temporo-parietal branch of the right middle cerebral artery. At the origin of the right anterior cerebral artery was a small saccular aneurysm. This and a segment of the artery were thrombosed. The cerebrum was cut into 17 coronal sections. There was extensive softening with hemorrhage of the right basal ganglia and also of several portions of the cerebrum including the cortex. The pons had several

similar regions ranging to 1.5 cms. in diameter. The right lateral ventricle and the fourth ventricle of the brain contained blood.

Comment.—The clinical symptoms of this patient seem clearly to be associated with the saccular aneurysm of the right internal carotid artery, complicated by mural thrombosis and multiple embolic infarcts of the brain. Apparently he had had small emboli with focal infarcts of the right cerebrum before the last serious episode. He recovered from these without residues. The dislodgement of thrombus material by palpation of the aneurysm during the physical examination seems probable. The aneurysm seems to have originated in atherosclerotic changes of the vessel wall. The Kahn reaction of the blood was negative and sections of the aorta and other vessels of the body had none of the changes of syphilis.

CASE 3. — ABDOMINAL LYMPHOSARCOMA

A white woman aged 83 years entered St. Luke's Hospital on November 21, 1945 in the care of Dr. Carl Rinder because of a daily fever of 102° F. She had been in the hospital for several days during October, 1945 because of joint pains of about five months' duration. Her blood pressure was 216 mm. of mercury systolic and 98 mm. of mercury diastolic. The heart had a systolic aortic murmur, the lungs had a few rales. A mass in the upper left quadrant



Case 3, Figure 1 — Photograph illustrating the lymphosarcoma of the mesenteric lymph nodes.

Case 3, Figure 2 — Photograph illustrating the tumor tissues in the periaortic abdominal lymph nodes. There is a marked atherosclerosis of the aorta.

of the abdomen at first considered to be the spleen was later thought to be a cancerous tumor. The many special blood examinations disclosed a reversal of the albumen-globulin ratio in a total protein of 7.22 gms. per cent of which 2.6 gms. was albumen. The sedimentation rate was markedly prolonged. The red blood cells were 3,260,000 per cubic millimeter, the leucocytes 10,250 and the hemoglobin 9.6 grams per cent. The differential blood count disclosed 81 per cent neutrophil leucocytes, 2 per cent eosinophil, 16 per cent lymphocytes and 1 per cent monocytes. Blood cultures and agglutination tests for typhoid, brucella and dysentery infections were negative. Despite large doses of penicillin her fever continued high, she grew progressively worse and she died on January 17, 1946.

The complete postmortem examination dem-

onstrated lymphosarcoma of the periaortic abdominal, parabronchial, mesenteric and pelvic lymph nodes and of the spleen; and lymphosarcoma invasion with thrombosis of the thoracic duct, the inferior vena cava and the right common iliac vein. There were other changes of the viscera but mainly those occurring with advanced age. The histologic examinations placed the sarcoma in the reticulum cell group.

Comment.—Lymphosarcomas of the abdomen involving lymph nodes in an inaccessible region present difficult clinical diagnostic problems. Fever of undetermined origin may be, as in this patient, the main symptom. A palpable abdominal mass gives only a general clue as to the tumorous character of the disease and not infrequently clarification comes only through the postmortem examination.



FOOD POISONING (Continued)

niques of food sanitation to those responsible for the outbreak. It is the combined information obtained from physicians' reports that makes this action possible.

The alert health department, of course, will not be content to wait for things to happen. Much has been accomplished in many communities through sanitation programs in which the education of food handlers is a chief feature. The value of refrigeration, sanitary preparation of food, significance of communicable disease and skin infections, personal hygiene, clean facilities, rodent and insect control are subjects receiving emphasis. A program of this nature will not prevent all outbreaks, of course, but experience has demonstrated its worth. Just a little of this information with respect to refrigeration and skin infections would have allowed at least one bridge game to proceed to a pleasant ending!

ERROR IN SLIDE RULE FOR METRIC CONVERSION OFFERED TO PHYSICIANS

Ciba Pharmaceutical Products, Inc., Summit, New Jersey are currently mailing to all physicians an extremely useful promotional piece. Designed to aid the physician in converting apothecary to metric units, the Medical Slyd-Rul is only 5½ inches in length and may be easily carried in the vest pocket along with pens and thermometers. Now that the U. S. Pharmacopeia XIII and the American Medical Association have adopted the metric system as standard, the need for quick conversion is greater than ever.

Due to manufacturers' error in placement of decimal point, conversion from 0.4 grain to gram is incorrect. It should read 0.025 gram, not 0.25. Physicians are asked to make correction by replacing present celluloid table with corrected temporary paper table now being mailed to them.

Ciba will replace the temporary slide with a new celluloid table as soon as possible.

The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation of individuals and States. Constitution of the World Health Organization, U. N.

HEALTH AND PHYSICAL FITNESS PROJECT BECOMES PART OF A.M.A. BUREAU

Recognizing the need for greater health education, the American Medical Association has established the Health and Physical Fitness Project in its Bureau of Health Education to study the problems of the preschool child, the school child, the college student, the adult and the industrial worker, states an editorial in the November 2 issue of *The Journal*.

The editorial follows in full:

"With the establishment of the Health and Physical Fitness Project in its Bureau of Health Education, the Association takes another step forward in its effort to contribute to the promotion of health. Health and physical fitness are important even though the popular interest in them has considerably diminished with the end of the war. The Board of Trustees early in 1946 authorized the establishment of a health and physical fitness project in the Bureau of Health Education to work under the supervision of the American Medical Association Committee on Health and Physical Fitness.

"The project will include the health and fitness problems of the preschool child, the school child, the college student, the adult, both rural and urban, and the industrial worker. Though the committee contemplates cooperation with all other health agencies working toward health improvement in home, school, industry and community, it has expressed the belief that it is first in the schools and second in industry that the most immediate and most practical approach to the problem lies. The efforts of the consultants in the project will therefore be directed to these fields.

"The committee will not attempt to set up any master plan or 'ideal' health programs and then attempt to procure their widespread adoption in the schools and industries of all types and sizes. Rather it is the plan to accumulate source files on the varied health programs now in use with the purpose of making both reports on these programs and the advice and counsel of the two consultants available on invitation to boards of health, boards of education, employers, employee groups, medical societies and women's organizations.

"This project is in a sense a continuation of

the work carried on by the Association in conjunction with government agencies and other interested groups during the late war. Including the project in the total health education program of the Association and staffing it with a physician who has had wide experience in health education and an educator experienced in the health and physical education fields will give it previous organization."

CHEAP GLASSES CAUSE EYE DISTRESS

Many poorly fitting and cheap glasses cause ocular distress and headaches, according to the December 7 issue of *The Journal of the American Medical Association*.

"A person who has such distress when he wears glasses naturally take them off, just as a man takes off a pair of shoes that does not fit him comfortably," *The Journal* states in answer to a query.

In discussing the harmful or beneficial effects of the average sun glasses on the eyes, *The Journal* states:

"The average sun glasses, obtained in drug and ten cent stores, if sufficiently dark, are as a rule comforting to the eyes of the average wearer on an average bright day, on the water or on the beach, where they are usually used. They reduce the total amount of light entering the eyes. The idea that certain makes of glass do not transmit the 'harmful' ultraviolet light is mostly sales talk, as the ordinary white glass allows but little ultraviolet light to pass through. In fact, in order to obtain passage for ultraviolet through a window pane it has to be specially made for that purpose. A certain amount of ultraviolet light is beneficial to the eyes; it is for this reason that vacations are taken at the seashore and in the mountains, and in the winter patients are sent to sunny climes."

In tuberculosis, rehabilitation is a form of treatment. Obviously, during the period of diagnosis and early hospitalization, medical care is paramount; but, at some point during the period of hospitalization, vocational guidance and training constitute a large portion of treatment and are continued into the immediate post-sanatorium period. Herman E. Hilleboe, M.D. and Norvin C. Kiefer, M.D., *Pub. Health Rep.*, March 1, 1946.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

BUREAU COUNTY

Society News.—Dr. James W. Sours, Peoria, addressed the Bureau County Medical Society in Spring Valley, January 14, on diseases of the liver.

CHAMPAIGN COUNTY

The Support of Medical Care.—"Private Versus Public Support of Medical Care" was the theme of a debate during the Rural Life Conference at the University of Illinois, Champaign, January 29. The two hour session was conducted by Dr. Mark V. Ziegler, chief medical officer, U. S. Department of Agriculture, Washington 25, D. C., speaking for public support of medical care, while Mr. John Neal, Chicago, Secretary of the Committee on Medical Service and Public Relations of the Illinois State Medical Society, spoke in defense of private or non-governmental support of medical care. Victor Lindberg presided at the session.

COOK COUNTY

Cancer Foundation Files for Charter.—Application for a charter for the University of Chicago Cancer Research Foundation was filed in Springfield recently. The foundation stems from the various research projects on cancer carried on at the University of Chicago and centers on the proposed Nathan Goldblatt Memorial Hospital for which the Goldblatt Brothers recently gave one million dollars. The new university foundation was organized as the agency to obtain support for the extensive cancer program and has offices at 122 South Michigan Avenue. In a statement to the press, December 22, E. C. Colwell, president of the university, indicated that some of the support of the foundation will be devoted to the Institute of Nuclear Studies and the Institute of Radiobiology and Biophysics at the University of Chicago. New equipment will include a 100 million electron volt betatron and a 92 inch cyclotron. Construction of the seven story Nathan Goldblatt Memorial Hospital will begin next spring.

University News.—An electroencephalograph,

used in studying the brain, has been installed at Northwestern University Medical School. Psychologic applications in the use of the machine, which thus far have been little studied, will be carried on by Donald B. Lindsley, professor of psychology at Northwestern, according to newspaper reports. Dr. Helen V. McLean of the Institute for Psychoanalysis lectured at the University of Illinois College of Medicine, January 8, on "Prejudice and Race Discrimination."

Bequest to Hospital.—Mercy Hospital, Chicago, recently received a check for \$200,000 from the estate of the late Mrs. Louise de Beaurepaire Thompson, wife of the late Ferris Thompson. The gift, which will be applied toward the erection of a proposed \$6,000,000 hospital, brings to \$615,000 the total benefactions given by Mr. and Mrs. Thompson. The contributions started in 1912 with an initial gift of \$250,000 and continued through the years with an annual gift of \$5,000.

Personal.—Dr. Maurice I. Edelman, formerly of Chicago and recently separated from active duty in the U. S. Navy, is now associated with Dr. A. R. Hollender, specializing in ophthalmology and otorhinolaryngology, in Miami, Fla.

Society News.—Dr. Meyer A. Perlstein, Chicago, will address the Allegheny Society for Crippled Children in Pittsburgh, Pa., February 26, on treatment and management of cerebral palsy. Dr. Perlstein presented the same subject before the Spastic Club of Chicago, January 31, the Georgia Society for Crippled Children and a meeting of faculty and students of Emory University School of Medicine, Atlanta, February 3, and before the University of Georgia School of Medicine, Augusta, February 4.—Dr. Mary G. Schroeder delivered a talk entitled "Looking Forward at Forty" before the South Edgebrook Woman's Club in Chicago, January 13.—"Stop Annoying Your Children" was the theme of an address by Dr. William W. Bolton, assistant director, Bureau of Health Education, American Medical Association, Chicago, before the John M. Palmer Parent Teacher Association in Chicago, January 14.—Dr. George E. Wakerlin,

Chicago, addressed the Woman's Club in Downers Grove, January 15, on "Cancer and Its Control." — Dr. John F. Pick, Chicago, discussed "The Surgery of Burns and Their Consequences" before the Academy of Medicine of Toledo and Lucas County, Toledo, February 7.

Legion of Merit Awarded.—Col. Paul A. Campbell, Chicago, was presented with the Legion of Merit Award in a special ceremony at the University of Illinois College of Medicine recently. The citation accompanying the award stated that Dr. Campbell, "as director of research, Army Air Forces School of Aviation, from May 1942 to October 1945, directed a research program which provided solutions to hundreds of medical problems associated with aviation. Colonel Campbell's outstanding professional ability and extraordinary achievements reflect great credit upon himself and the armed forces of the United States."

Henry Pope Dies.—Henry Pope, Sr., prominent manufacturer and co-founder with the late President Roosevelt of the Georgia Warm Springs Infantile Paralysis Foundation, died January 7, at his home in Chicago. Mr. Pope donated the site for the Warm Springs Foundation in 1927 and served as a vice president and trustee until ill health caused his resignation in March 1946. Mr. Pope also created the Pope Foundation in 1934 to "alleviate human suffering and disease through scientific research."

Dr. Cordes Gives Gifford Lecture.—Dr. Frederick C. Cordes, professor of ophthalmology, University of California Medical School, San Francisco, delivered the third annual Sanford R. Gifford Memorial Lecture at the John B. Murphy Memorial Auditorium of the American College of Surgeons, Chicago, January 20, on "Types of Congenital Cataract." The lecture was sponsored by the Chicago Ophthalmological Society.

Physician Wills Fund to Harvard.—The will of Dr. John Favill, late professor of neurology, University of Illinois College of Medicine, provides that a trust established in 1935 for his first wife, Mrs. Rhea Stalcup Favill, be dissolved at her death and given to Harvard University. Dr. Favill, who graduated at Harvard Medical School, Boston, in 1913, died December 21.

Physiologist Praises the Press.—Dr. Andrew C. Ivy, Vice President of the Chicago Professional Colleges, University of Illinois, in a published statement, January 3, praised the Chicago *Daily News* for its increased reporting of science stories, acknowledging its accurate reporting and interpretation and commenting on the work of Arthur J. Snider, staff reporter. Dr. Ivy, who recently went to Germany to testify in the trial of Nazi doctors charged with medical war crimes, was the American representative on a commission that investigated the doctors.

Institute of Medicine Lectures.—Dr. Robert H. E. Elliott, Jr., department of surgery, Columbia University College of Physicians and Surgeons, will present the twenty-third Lewis Linn McArthur

Lecture of the Frank Billings Foundation at the Palmer House, February 28, at 8 o'clock. His subject will be "A Revaluation of Splenectomy in Thrombocytopenic Purpura, Based on a Twenty-Seven Year Combined Clinic Follow-Up."—The twenty-third Ludvig Hektoen Lecture of the Frank Billings Foundation will be delivered at the Palmer House on Friday evening, March 28, at 8 o'clock by Dr. Herbert M. Evans, director, Institute of Experimental Biology, University of California, Berkeley, on "The Internal Secretions of the Pituitary Body."

Tuberculosis Appointments.—Dr. Arthur W. Newitt, senior surgeon, U. S. Public Health Service, has been selected tuberculosis control officer of Chicago, a newly created position. Dr. Newitt has been granted leave by the public health service only long enough to establish the Chicago tuberculosis office. He has been in the service as tuberculosis control consultant since 1931 and in the last two years has made control surveys in Chicago, Cook County and New York City. Dr. Camillo E. Volini, Chicago, on January 8 was named superintendent of clinics for the Municipal Tuberculosis Sanatorium, Chicago, succeeding the late Dr. Edward R. Troy. Dr. Volini has been a member of the sanatorium staff since 1934, serving as director of field collapse therapy since 1940. He graduated at Loyola University School of Medicine, Chicago, in 1933.

Special Society Elections.—At a meeting of the Chicago Tuberculosis Society recently Dr. Hugo T. Cutrera was elected president, Dr. Jacob L. Marks, vice president, and Dr. George W. Holmes, secretary-treasurer. Dr. J. Arthur Myers, Minneapolis, presented a paper at the meeting on "Early Tuberculosis."—Dr. Theodore B. Bernstein has been chosen president-elect of the Chicago Society of Allergy. Dr. William A. Mowry, Madison, Wis., is president and Dr. Edward G. Tatge, Evanston, secretary-treasurer.

Research in Atmospheric Environment and Aviation Medicine.—Medical research in atmospheric environment and aviation medicine will be accelerated at the University of Illinois with the completion next summer of a new physical environment addition to the Research and Educational Hospitals at the Chicago Professional College Campus, Polk and Wood streets. Architects are now at work on the final drawings for the new addition, a one story structure with sufficient ceiling height to house a large pressure and temperature controlled chamber, a large psychrometric room and an acoustic laboratory. Cost of the research addition will be \$250,000. An additional expenditure of \$250,000 will be made for the major portion of the research equipment, which, because of its size, must be installed before the walls of the building are completed.

DE WITT COUNTY

Twenty-One Years as Secretary.—Dr. William R. Marshall, Clinton, with his reelection at the Decem-

ber meeting of the De Witt County Medical Society, entered his twenty-second consecutive year as secretary-treasurer of the society. Dr. Marshall graduated at the Chicago College of Medicine and Surgery in 1909. Dr. Keith Rhea, Clinton, and Dr. Wiley R. Marvel, were elected president and vice president, respectively, of the county medical society. As guest speaker, Dr. Wilbur G. Ball, Bloomington, addressed the meeting on treatment of diseases of the rectum.

Personal.—Dr. Charles W. Carter, Clinton, who is spending the winter in Florida, has announced his retirement from active practice. He graduated at the University of Illinois College of Medicine, Chicago, in 1897.—Mrs. Philip Sudendorf has been named superintendent of the Dr. John Warner Hospital, Clinton, succeeding Miss Clara Lee Cline, R.N., resigned.

FULTON COUNTY

Society News.—Dr. Louis N. Tate, Galesburg, discussed "Acute Rheumatic Fever" before the Fulton County Medical Society at a meeting in Canton, January 16, and Dr. Milo G. Reed, Galesburg, spoke on "Segmental Neuralgia."

LAKE COUNTY

Hospital News.—Highland Park Hospital plans a program of expansion to cost about \$525,000, it was announced December 15. Tentative plans call for the installation of a new unit for infant and maternal care, the construction of a surgical suite and addition of utility rooms. The erection of an east wing to the hospital will permit the expansion of bed capacity from an existing 47 beds to 100.

LIVINGSTON COUNTY

Society News.—Dr. John F. Pick, clinical assistant professor of surgery, University of Illinois College of Medicine, Chicago, discussed "Methods of Plastic Repair" before the Livingston County Medical Society in Pontiac, December 12. Dr. Pick, who was chief surgeon of the Fourth Service Command, showed slides illustrating war surgery as it was handled overseas. One action taken by members of the society during its meeting was a vote to send news releases to all newspapers in Livingston County concerning common diseases. Members of the society were dinner guests of Drs. George I. Blough, Odell, and Bertram A. Richardson, Emington, at the Liberty Cafe, Pontiac.

LOGAN COUNTY

Neuropsychiatric Conference.—A two day post-graduate assembly in neuropsychiatry was held at the Lincoln State School & Colony, Lincoln, January 28-29, as a part of the educational program of the Illinois State Department of Public Welfare for state hospital physicians in the general practice of medicine in Illinois. The program included the following speakers:

Dr. H. H. Garner, clinical assistant professor of psychiatry, University of Illinois College of Medicine, Chicago, "Psychosomatic Medicine."

Dr. Ben W. Lichtenstein, associate professor of neurology at the University of Illinois College of Medicine and state neuropathologist, "Syphilis of the Nervous System."

Dr. George J. Mohr, associate professor of criminology, University of Illinois College of Medicine, "Emotional Disturbances in Childhood."

Dr. Milton Tinsely, member of the staff of the Neuropsychiatric Institute, Chicago, "Management of Acute Head Injury."

Dr. Frederic A. Gibbs, associate professor of psychiatry, University of Illinois College of Medicine, Chicago, "The Value of Electroencephalography."

David Shakow, chief psychologist, department of psychiatry at Illinois, "The Significance and Value of Psychological Tests."

Dr. Ralph Hamill, emeritus professor of psychiatry, University of Illinois College of Medicine, Chicago, "The Relationship Between Psychiatric Disturbances in Children and Adult Psychoses."

Dr. Richard B. Richter, professor of medicine (neurology), University of Chicago School of Medicine, "Acute and Chronic Encephalitis."

Dr. Paul C. Bucy, professor of neurology and neurosurgery, University of Illinois College of Medicine, "The Problem of Low Back Pain."

With Dr. William W. Fox, superintendent of the Lincoln State School & Colony acting as host, the dinner speaker the evening of the first day's session was Dr. Anton J. Carlson, emeritus professor of physiology, University of Chicago School of Medicine, whose paper was entitled "Can Research in Our State Hospitals Contribute to the Understanding of the Causes of Alcohol Addiction?"

Cassius Poust, Springfield, is director of the Illinois Department of Public Welfare, and Dr. Harry R. Hoffman, Chicago, alienist, whose division sponsored the program.

MADISON COUNTY

Society News.—"The RH Factor" was discussed by Dr. Raymond O. Muether, St. Louis, before the Madison County Medical Society in Collinsville, January 3. Dr. Muether is associate professor of internal medicine at St. Louis University School of Medicine. Officers of the Madison County Medical Society include Drs. Leo H. Konzen, Wood River, president; Robert H. Greaves, Collinsville, vice president; Eugene F. Moore, Collinsville, secretary, and Duncan D. Monroe, Alton, treasurer.

McLEAN COUNTY

Personal.—Dr. Edwin L. Rypins, who recently was released from military service, has resumed his practice in radiology in Suite 317, Eddy Building, 425 North Main Street, Bloomington.

Society News.—Dr. Archibald Hoyne, Chicago, discussed "Newer Concepts in the Management of Contagious Diseases" before the McLean County Medical Society, January 14.

PEORIA COUNTY

Personal.—Dr. Maxim Pollak announces the opening of his office at 735 Jefferson Building, Peoria 2. His practice is limited to diseases of the chest.

VERMILION COUNTY

Society News.—Dr. James J. Callahan, associate professor of surgery, Loyola University School of Medicine, Chicago, addressed the Vermilion County Medical Society in Danville, January 7, on "Common Fractures."

GENERAL

Postgraduate Conference.—January 22 a post-graduate conference was held at the Louis Joliet Hotel, Joliet, under the auspices of the Post-Graduate Education Committee of the Illinois State Medical Society. More than 130 physicians attended the conference. With Edwin S. Hamilton, M.D., Kankakee, presiding as councilor of the Eleventh Councilor District, the session opened with a complimentary luncheon. Speakers were:

Dr. James H. Hutton, Chicago, "Common Endocrine Disturbances."

Dr. Warren H. Cole, professor of surgery, University of Illinois College of Medicine, Chicago, "Cancer of the Breast." (Kodachrome Slides).

Dr. Frederick H. Falls, professor of obstetrics and gynecology, University of Illinois College of Medicine, "Cesarean Section." (Lantern slides).

Dr. Raymond W. McNealy, associate professor of surgery, Northwestern University Medical School, Chicago, "Primary Anastomosis of the Large Bowel."

Dr. Howard L. Alt, associate professor of medicine, Northwestern University Medical School, Chicago, "Diagnosis and Treatment of Leukemia."

A round table discussion followed the afternoon program. Speakers at the dinner session were Dr. Harold M. Camp, Monmouth, Dr. Percy E. Hopkins, Chicago, and Dr. Hamilton on "Voluntary Prepayment Medical Care Plans." Dr. Hutton gave a brief talk on the problem of tuberculosis in Illinois. This conference was seventh in a series of ten authorized by the Council of the state medical society for the 1946-1947 season. Tentative programs are now being scheduled for in Mattoon, April 17, for the Eighth Councilor District where Dr. Harlan English, Danville, is Councilor, and one for East St. Louis, April 3, where Dr. Grover C. Otrich, Belleville, is Councilor.

Illinois Representation in Orthopedic Program.

Dr. John R. Norcross, Chicago, was chairman of the local arrangements committee of the American Academy of Orthopaedic Surgeons which met at the Palmer House, Chicago, January 25-30. Included among the Illinois physicians who participated in the instructional courses, scientific program and discussions and scientific exhibits were Drs. Dallas B. Phemister, Mary Sherman, Edward L. Jenkinson, Franklin C. McLean, Edward L. Compere, Fremont A. Chandler, Edwin F. Hirsch, Charles M. Pease, Harry Kaelle, Frank G. Murphy

and Elwin J. Berkheiser, all of Chicago, and John J. Fahey and Michael de Cosola, Evanston. Dr. Chandler is treasurer of the American Academy of Orthopaedic Surgeons and Dr. Compere, librarian-historian.

New Members of Surgeons' Governing Board—

During the annual meeting of the American College of Surgeons in Cleveland in December, the following were elected, among others, to the board of governors for terms expiring in 1949: Drs. Harry Culver, Arthur H. Curtis, Loyal Davis, Sumner L. Koch, Herman L. Kretschmer and Edward Ryerson, all of Chicago; William C. Danforth, Evanston, Harold L. Foss, Danville.

Licentiatees in Medicine Increased in 1946.—

A total of 1,082 licenses to practice medicine in Illinois were issued in 1946, more than for any year since the present registration law was enacted in 1923, newspapers report. In 1945, 480 licenses to practice were issued. It was also stated that of the 575 physicians who left Illinois for other states, one third went to California.

Report on Health Survey.—

More than fifty aspects of health service are covered in the report of the health survey of Chicago and Cook County which was recently made available. The study was carried on for eight months by the U. S. Public Health Service, and was motivated by a group of agencies interested in the health of Chicago. The group included the health division of the Council of Social Agencies, the Institute of Medicine of Chicago and the Chicago Medical Society. Governor Dwight Green, Mayor Kelly and Mr. Clayton F. Smith, president of the Cook County Board, invited the U. S. Public Health Service to make the study and an advisory committee was appointed to supervise the work and obtain funds, personnel and equipment necessary. The *Illinois Medical Journal* plans in a subsequent issue to make available and abstract of the report. The study was organized in five major divisions: Preventive Medicine, which includes communicable disease, tuberculosis, venereal disease and nutrition; Industrial Hygiene, covering all work done in that field; Nursing; Medical Care, including such items as hospitals, ambulance service and clinics; and Environmental Sanitation, which involves topics like water, sewage disposal, food supplies, air pollution and housing. Critical evaluations of present voluntary and official health agencies were also covered. The objectives of the study were to make a fact-finding inventory of all health forces; to appraise their strengths and weaknesses; to deduce a comprehensive long-range pattern for the mobilization of all health forces in the Chicago-Cook County area; to interpret for the citizens how nearly they are realizing the full value of their tremendous investments in health services and to determine what other investments should be made.

Public Education in Tuberculosis.—A committee for public education in tuberculosis was formed at a meeting in the Institute of Medicine of Chicago,

December 16. Called by the Tuberculosis Control Committee of the Chicago Medical Society, the organization meeting, with Edna Nicholson, director of the Central Service for the Chronically Ill, was attended by representatives of fifty-nine groups in Chicago and vicinity interested in developing a concerted control program on tuberculosis. Mrs. Laura Lunde, health chairman, Cook County League of Women Voters, was chosen permanent chairman of the new committee and Mr. Thaddeus Allen of the Chicago Tuberculosis Institute, secretary. Members of a subcommittee on legislation named at the session are Drs. Jerome Head, chairman, Edward A. Piszczek, director of the Cook County Health Department, and Arthur W. Newitt, tuberculosis control officer of Chicago. This subcommittee has completed the outline of a comprehensive plans including new construction of sanatoriums and legislation concerning financing. In doing this the subcommittee has conferred with Dr. Leslie V. Knott, medical administrative assistant, Illinois Department of Public Health, and other representatives of the department as well as with representatives of the Illinois Tuberculosis Association, Illinois Trudeau Society, the tuberculosis advisory committee of the Illinois State Medical Society, the board of directors of the Tuberculosis Institute of Chicago and Cook County and the boards of directors of the private sanatoriums in the Chicago area. The plan, as developed, will have the support of all of these organizations and was to be presented to the publicity committee at the second meeting January 20.

Medical Education.—The forty-third annual Congress on Medical Education and Licensure, sponsored by the Council on Medical Education and Hospitals of the American Medical Association, was held at the Palmer House, February 9-11. In a round table discussion on "Residency Programs in Veterans Hospitals", the speakers included Dr. J. Roscoe Miller, Chicago, dean of Northwestern University Medical School. Other Illinois participants in various sections of the program were Drs. Victor Johnson, Chicago, Secretary of the Council on Medical Education and Hospitals, and Edwin S. Hamilton of Kankakee who discussed, respectively, "Foreign Medical Graduates" and "Conduct and Value of Practical Examinations in Medical Licensure." These two physicians also took part in a panel discussion on "Present Day Trends in Medical Licensure." Merle Coulter, Ph.D., Chicago, professor of botany, University of Chicago, assisted in a discussion on "Academic Performance of Pre-medical Veterans," and Raymond E. Zirkle, Ph.D., Chicago, director of the Institute of Radiobiology and Biophysics, University of Chicago, in a discussion on "Medical Applications of Atomic Energy."

Dr. Andrew C. Ivy, Chicago, vice president, Chicago Professional Colleges, University of Illinois, gave the principal address Monday evening, during the dinner of the Federation of State Medical

Boards, on "Nazi War Crimes of a Medical Nature."

The Birth Rate in Illinois.—A total of 45,040 birth certificates filed in the division of vital statistics and records, Illinois Department of Public Health, Springfield, made a new record of live births registration, according to a report on mortality and natality in the state for the first nine months of 1946. This number which is 5,600 over the highest third quarter ever recorded in Illinois, brings the first nine month's total to 111,697 as compared with the 1945 figure of 98,204. It now appears that more births will be recorded for 1946 than in any previous year, the report said. The estimated birth rate for 1946 is about 19 live births per thousand population.

The death rate for infants under one year was 32.5 per thousand live births for the first nine months of 1946. This rate is 5 per cent below the average rate for the first nine months of the last five years.

HEALTH DEPARTMENT ACTIVITIES

Cancer Clinic Opens.—A state-aided cancer-clinic for the diagnosis of cancer was opened December 18 at the Marshall Browning Hospital in Duquoin through the cooperation of the Illinois Department of Public Health and the Perry County Medical Society. This clinic brings to seven such clinics now available in different sections of the state.

Health Aids Honored.—Dr. Henrietta Herbolzheimer, chief, division of maternal and child hygiene, Illinois Department of Public Health, Springfield, was recently elected president of the Association of Directors of Maternal and Child Hygiene and Crippled Children Services, an advisory organization for the United States in co-operating with the U. S. Children's Bureau in formulating policies. Dr. Richard Boyd, chief, division of local health administration of department, was elected chairman of the Health Officers Section of the American Public Health Association. He had previously served the group as secretary.

MARRIAGES

WILFRED S. MILLER, Assumption, to Felice Connolly, of Taylorville, November 25, in Kewanee.

DEATHS

JAMES ALEXANDER CRAVENS, Greenfield, who graduated at Washington University School of Medicine, St. Louis, in 1902, died December 5, aged 74. A member of the Fifty Year Club of the Illinois State Medical Society, Dr. Cravens had practiced in Greenfield from 1903 until 1933 when he joined the staff of the Jacksonville State Hospital, retiring from this position in 1945 to return to Greenfield. Schools and business places were closed the day of the physician's funeral out of deference to his services in Greenfield.

GEORGE L. CREMEENS, Springerton, who graduated at Keokuk Medical College, Keokuk, Iowa, in 1895, died December 21, aged 78. He was a member of the Fifty Year Club of the Illinois State Medical Society.

CHARLES MARSHALL DAVISON, Chicago, who graduated at the University of Illinois College of Medicine in 1920, died December 16, aged 50. At the time of his death Dr. Davison was medical superintendent of the University Hospital, an institution founded by his father. He at one time was medical director of Cook County Hospital. At the time of his death he was associate professor of surgery at Northwestern University Medical School and professor of surgery at Cook County Graduate School of Medicine.

STEPHEN EDWARD DONLON, Chicago, who graduated at Rush Medical College in 1895, died at his home, January 6, aged 82, of a cerebral hemorrhage. Dr. Donlon was chief of staff of St. Anthony de Pacua Hospital for many years and a member of the Illinois State Medical Society.

JOHN FAVILL, Chicago, and Winnetka, died December 21 in his home in Winnetka, aged 60. Dr. Favill graduated at Harvard Medical School, Boston, in 1913 and was licensed to practice in Illinois in 1915. He was certified by the American Board of Psychiatry and Neurology and held membership in many groups, including the Illinois State Medical Society, the American College of Physicians, the American Neurological Association, American Psychiatric Association, Association for Research in Nervous and Mental Disease and the Central Neuropsychiatric Association, serving at one time as president of the Chicago Neurological Association. Dr. Favill was professor of neurology at the University of Illinois College of Medicine at the time of his death and a member of the staffs of Presbyterian and Highland Park hospitals as well as a member of the consultant staff to Lake Forest Hospital.

ALFRED FIELDBRAVE, Christopher, who graduated at Bennett Medical College, Chicago, in 1912, died in the Herrin Hospital, October 6, aged 69.

GEORGE ALBERT INGRISH, Chicago, died December 17, in the Little Company of Mary Hospital, aged 40. Dr. Ingrish graduated at the University of Illinois College of Medicine in 1931. He had served in the Army Air Forces from July 1942 to December 1945 when he was released with the rank of lieutenant

colonel. He was a member of the staffs of Cook County, Evangelical, Englewood, Holy Cross, Little Company of Mary, Roseland and Woodlawn hospitals, and professor of urology at the Cook County Graduate School of Medicine.

JOSEPH SEMARAK, Oak Park, died December 17, aged 80. A graduate of Reliance Medical College, Chicago, in 1909, Dr. Semarak had practiced in Oak Park for twenty-eight years. He was a member of the Illinois State Medical Society.

WILLIAM NICHOLAS SENN, Chicago, died January 2, in Wesley Memorial Hospital, aged 70. Born in Milwaukee, Dr. Senn graduated at Rush Medical College in 1900 and served his internship at Presbyterian Hospital. The son of the noted Dr. Nicholas Senn, he served in the medical corps of the U. S. Army in the Spanish-American War and World War I. A member of the Illinois State Medical Society, Dr. Senn had not been engaged in active practice for a number of years.

WILLIAM CHARLES OCASEK, Berwyn, who graduated at the University of Illinois College of Medicine, Chicago, in 1935, died November 11, aged 39, of coronary occlusion. Dr. Ocasek was a member of the Illinois State Medical Society, served on the staffs of West Suburban Hospital, Oak Park, and Grant Hospital, Chicago. He was once assistant and instructor in medicine at the University of Illinois College of Medicine.

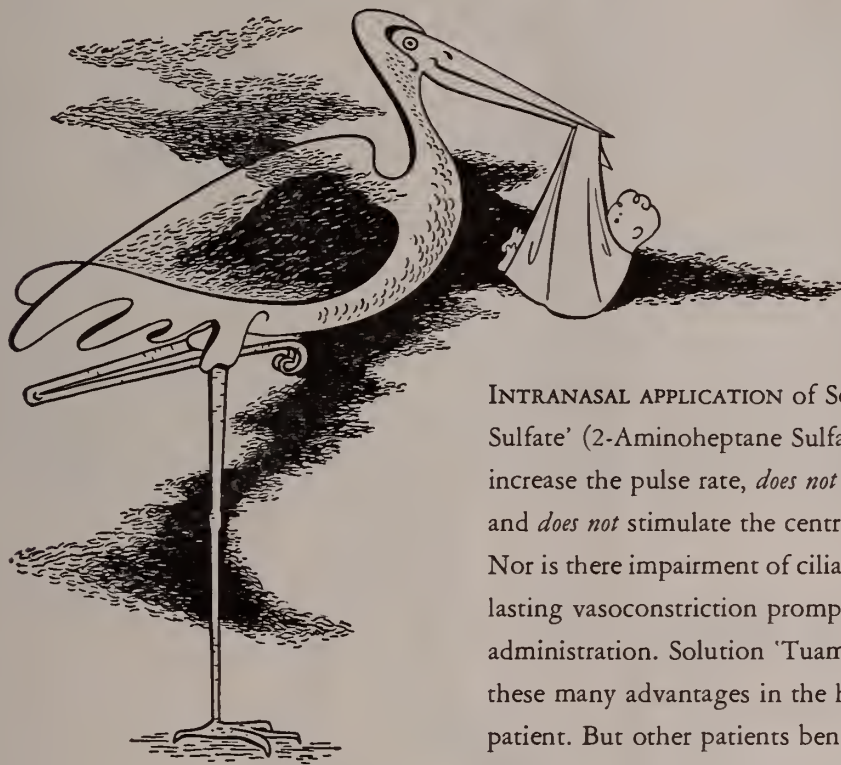
WILLIAM LIGHTFOOT POWELL, Palmyra, who graduated at Bennett College of Eclectic Medicine and Surgery, Chicago, in 1897, died December 25 in the Carlinville Hospital, aged 86, following an extended illness. He was a member of the Illinois State Medical Society.

FRANK JULIUS RESCH, Chicago, who graduated at Loyola University School of Medicine, Chicago, in 1918, and who was on the staff of the Grant Hospital, died October 12, aged 58, of coronary occlusion.

PETER STROFS, Chicago, a graduate of the University of Illinois College of Medicine, Chicago, in 1931, a member of the courtesy staff of the Mother Cabrini Hospital and affiliated with the Veterans Administration Facility, Hines, died in the Michael Reese Hospital November 5, aged 43, of chronic myelogenous leukemia.



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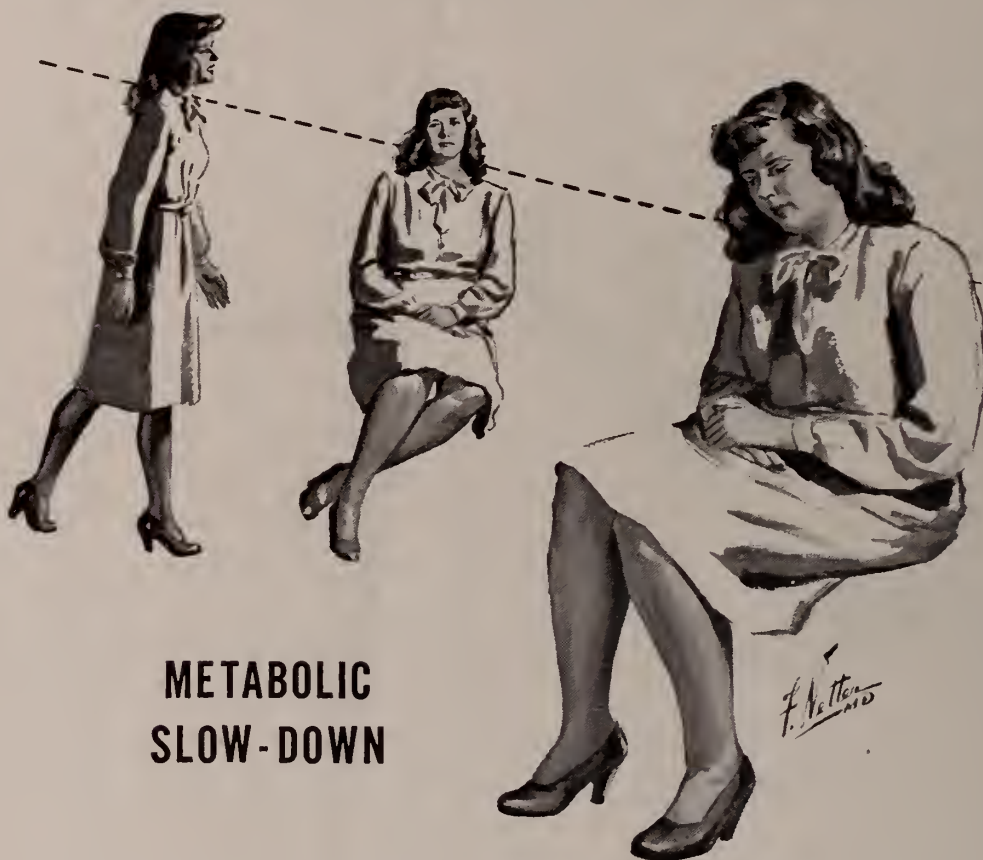
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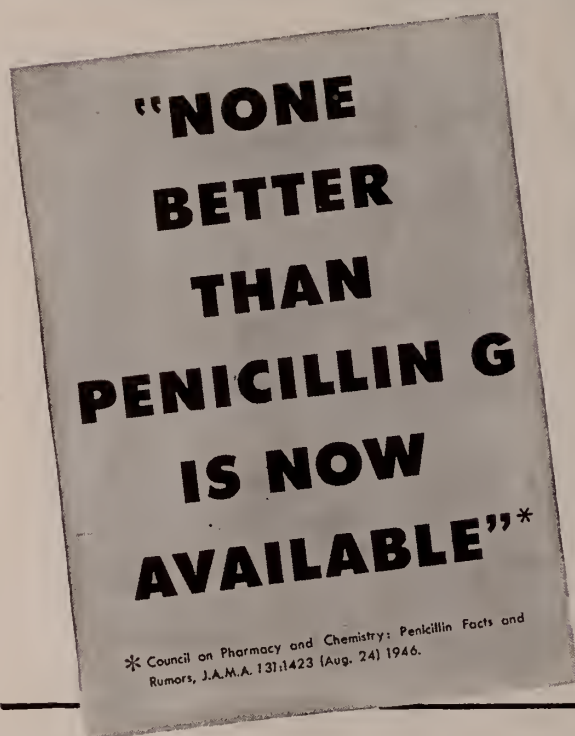
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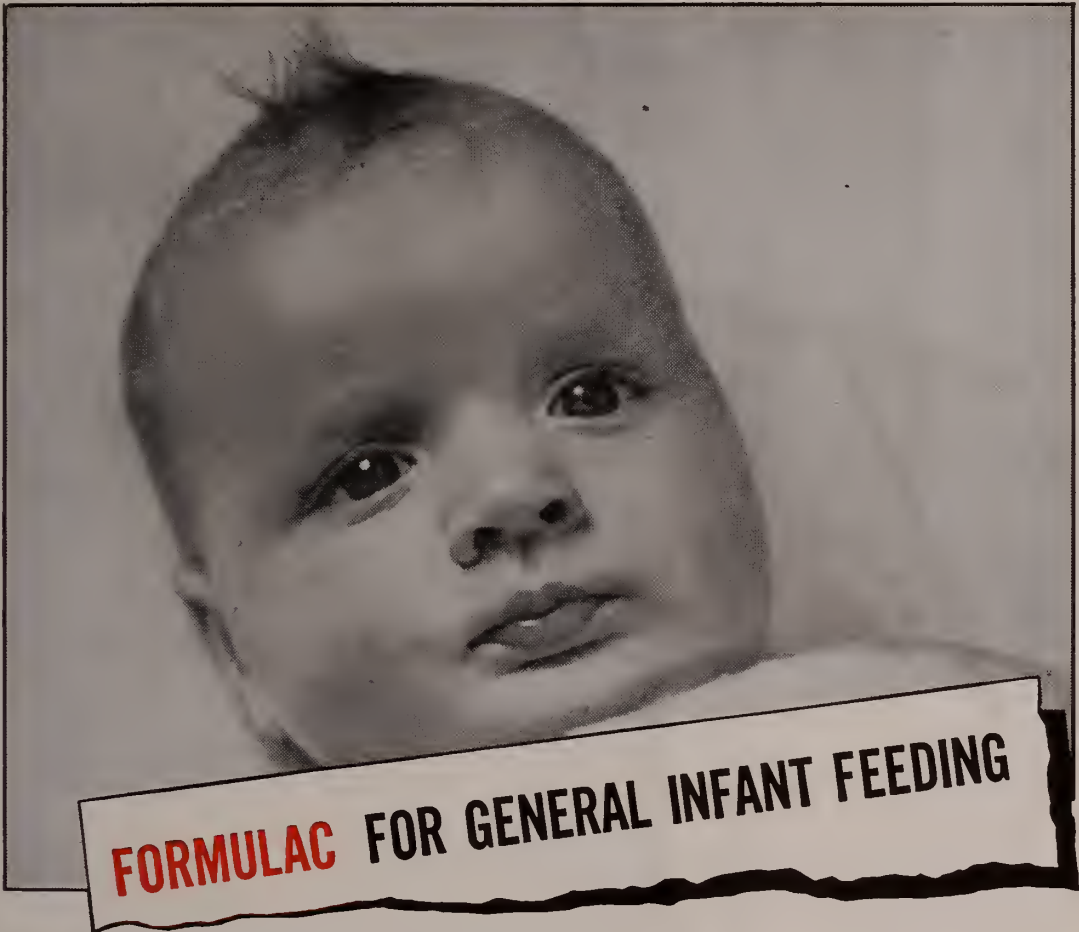
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The White Picket Fences of Pass Christian.

Every city has something distinctive,
Little things we remember them by,
An effect on the palate instinctive
Or that catches the ear or the eye.
It may be architectural greatness,
Or delectable food we were served,
Or a charming artistic sedateness,
Or a quaint little trait we observed.
But a mem'ry that's always outstanding,
Since our numerous trips to the Gulf Coast began,
With a welcome that's almost commanding,
Are the white picket fences of Pass Christian.
They have hominess, dignity, beauty,
With gay flowers peering through them so bright,
Both perform an aesthetical duty
As they cheerily guide us at night.
And we trust they will cherish them deeply,
Will refresh them and add many more as they can,
For the mem'ry intrigues us completely
Of the white picket fences at Pass Christian.

THE ROYAL FLUSH.

One night a group of internes decided to have a game of poker. Search as they would a deck of cards could not be found in the hospital.

Then one, more resourceful than the others, suggested they play with the hospital index cards.

Fifty two of these were selected at random, shuffled and dealt as poker hands. After the usual discarding and drawing of cards, soon all dropped out but three. After some brisk betting and a sizable sum was on the table the hands were called.

The first one said, "I have three appendectomies and two cholecystectomies. That is a full house."

"Not so fast," said the second, "I hold four tonsillectomies and a Pott's fracture. That is four of a kind."

"Neither of you is any good," said the third, "I have five soap suds enemas and that is a royal flush."

CYNNICAL CINQUAINS

When snow
And ice and sleet
Harass us everywhere
It does help some to grouse and bleat
And swear.

BREAKING BREAD

I am tired of dinners in courses,
I am tired of tables so prim,
With each thing in it's place,
With its linen and lace,
And an atmosphere proper and grim.
I am tired of service in silence,
Where the waiters glide stealthily by.
With the antique glassware
And the china so rare,
And of food that's planned most for the eye.
For a change give me stools and a counter,
To rub elbows with average folks,
Though the china is thick
And each glass has a nick
There is gaily, laughter and jokes.
Here assemble diversified peoples
With the primitive urge to be fed,
A cross section of life
with its struggles and strife—
Some are leaders but most must be led.
Let me mingle with life as men live it,
And break bread with the average man,
For we each have our work
And are lost if we shirk,
Let me learn I am one of the clan.

THE HAIRLESS HORDE.

A half of a century finds me
Still combing obstreperous hair;
Each mirror I gaze in reminds me
It's time I gave up in despair.
I contemplate time I have wasted,
And effort and skill misapplied,
The thatch has been greased and been pasted,
Yet all of my efforts defied.
How I envy the man who is hairless
With a double-yolked egg for a dome,
For his life is care-free and despairless
Since he knows neither brush nor a comb.

IRRITANTS.

I've endured wide variations
Of cutaneous irritations,
From pediculi that crawled about my head;
I've had heat rash in abundance,
Uticarial redundancy,
And the bugs of rooming houses in my bed.
My whole face has been ablister
From the sunshines rays sinister,
And veracious fleas have chewed my wide confines,
I've had chiggers in my ankles,
And the memory still rankles
Of the time I plucked some poison ivy vines.
Caterpillar and mosquito
Are quite like a brisk magneto
In igniting sorry memories of the past;
But of irritants the saddest,
And the one that made me maddest,
Was a crop of hives beneath a plaster cast.

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**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

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Nephritin has been reported to increase urinary flow, favorably influence the output of urea and total solids, reduce edema, and aid in relieving subjective symptoms.

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Weille, F. L.: M. Clin. North America 28:1115.

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for patients with painfully inflamed
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is so much easier to swallow
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is so outstandingly palatable
that even infants and children
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is so quickly absorbed
that it provides desired serum levels
3 to 5 times more rapidly than tablets.

Smith, Kline & French Laboratories, Philadelphia, Pa.

Physical Medicine Abstracts

John S. Coulter, M.D.

TOTAL EXCISION OF THE PATELLA FOR FRACTURE

In AMERICAN JOURNAL OF SURGERY, 72:4:510
October 1946

W. Russell MacAusland, M.D., Boston, Mass.

A report has been presented on the treatment of fourteen fractures of the patella by total excision of the bone. In eleven of the cases, sufficient time had elapsed to judge the end results. Ten of these patients obtained good functional knees. The convalescence was rapid, and the patients had returned to work in much shorter time than is possible under suture fixation methods.

The procedure is considered to be indicated only in certain fractures. It offers a solution of treatment in severely comminuted fractures, whether recent or of long standing, in which disability is prolonged and the results are satisfactory. Patellectomy is also indicated in transverse fractures of long standing in which malunion or non-union has resulted. The method is not recognized as the established treatment of fresh transverse fractures.

TREATMENT OF SACROILIAC SPRAIN BY MANIPULATION

A. M. Bodwell, M.D., Tampa
In JOURNAL OF THE FLORIDA MEDICAL
ASSN., 33:4:193
October 1946

Sacroiliac sprain is a definite entity. It is, in fact, the major cause of low back pain. This type of sprain occurs gradually as the development of relaxation and postural strain alters the mechanical and static forces of bodily equilibrium between the trunk and the lower extremities, or it develops suddenly as a result of some traumatic

event. When onset is gradual, referred pain does not develop for some time; when the onset is sudden, there is a history of an awkward movement resulting in a stitch low in the back. Sacroiliac sprain also sometimes accompanies crushing injuries of the spine or pelvis or both. In these cases, when pain continues to be present over the sacroiliac joint, it usually is still displaced, and after manipulation the pain disappears. Anatomically, this joint has a wide irregular surface, the shifting of which even in slight degree produces symptoms of subluxation.

The characteristic features of sacroiliac sprain are recounted, and a method of treatment by manipulation is described. A series of 146 cases is presented in which this therapy produced spectacular results, greatly reducing the average period of treatment and effecting recovery in 96 per cent of the cases.

TREATMENT OF EXTREMITIES FOLLOWING SUDDEN FAILURE OF CIRCULATION

Gordon Murray, M.D., J. S. Simpson, M.D., and
N. A. Watters, M.D., Toronto, Canada (From the
Department of Surgery, University of Toronto,
General Hospital)

In SURGERY, 20:3:315
September 1946

There is much evidence to indicate the orthodox method of treatment of acute failure of circulation such as occurs in embolism, diabetes, senile or Buerger's gangrene, or injuries to major blood vessels and frostbite, might be revised to advantage. The textbook treatment of such conditions, namely, elevation, heat, and mild antiseptic dressings, is a survival of the past. ante-

(Continued on page 54)

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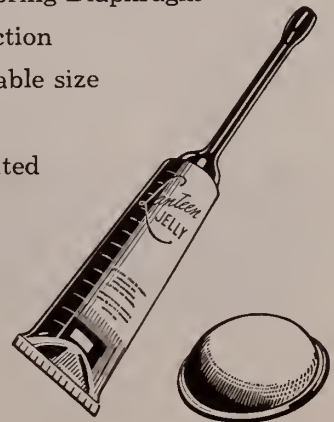


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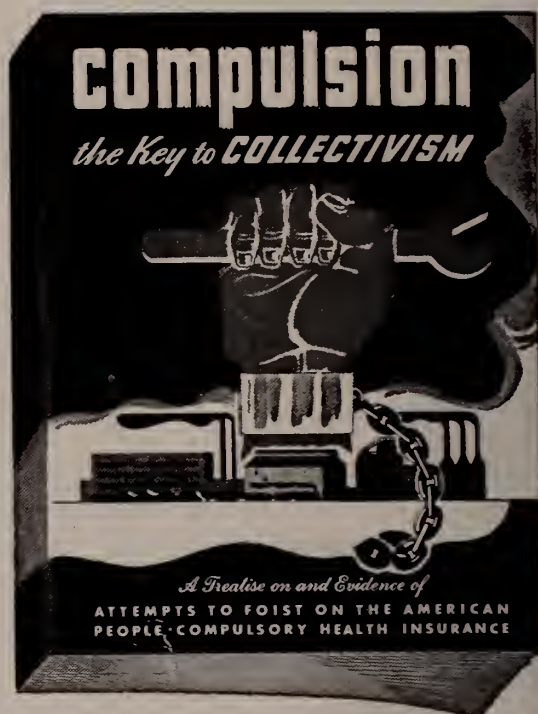
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- The Wagner-Murray-Dingell Bills • Historical Background of the Wagner-Murray-Dingell Bills • The Bureaucratic Propaganda Front • Government Propaganda for Political Medicine • The Mis-Used Draft Rejection Statistics • Organized Medicine's Efforts for Better Medical Care • The Why of Physician

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Sulfathiazole (microcrystalline)0.25 Gm.	Sodium Lactate0.55 Gm.

* Lehr, D.: Proc. Soc. Exper. Biol. & Med. 58:11 (Jan.) 1945

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Sodium Citrate and
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PHYSICAL MEDICINE (Continued)

dating Harvey's discovery of circulation of the blood and the increased knowledge of physiologic principles. Sydenham's recordings of the practices of Hippocrates indicate that in 410 B.C. he used the methods just described. It is probably fair to assume that Hippocrates did not know the physiology of circulation as we know it. His object in treatment was to hasten the formation of the line of demarcation and to facilitate the natural separation of the gangrenous from the adjacent living tissue, and his principles of elevation, and application of heat and embalming herbs, which are the textbook methods of treatment today, were quite effective in precipitating a pre-gangrenous condition into frank gangrene with the result which he desired. With the present knowledge of physiology, it would seem that the application of rational principles might prevent the advance of a pregangrenous condition and might set up conditions which would favor a return of circulation and survival of the part.

Conclusions

In extremities with impaired circulation the best prospects for survival can be provided by keeping the extremity dependent, by the application of cold, and by using methods to effect maximum dilatation of the collateral vessels entering the extremities.

COMPLICATIONS OF COLLES' FRACTURES

Lenox D. Baker, M.D., and Howard J. Schaubel, M.D.,
Durham

In NORTH CAROLINA MEDICAL JOURNAL
7:9:457

September 1946

Avoidance of Complications Resulting from Disuse

Disuse of the injured extremity leads to loss of joint motion and causes more disability than does the original injury. To avoid these complications, the patient should be taught one or several exercises immediately following reduction of the fracture. (By "immediately" is meant before the patient leaves the fracture room following the reduction.) Limitation of motion in the shoulder, elbow, and finger joints is the result of improper treatment and not of the injury. There are several groups of exercises that may be used to insure complete motility of these joints. Any or all of these exercises can be used with satisfaction provided the patient is cooperative.

One of the simplest exercises for the shoulder is circumduction with gravity eliminated. This is carried out as follows: As the patient supports a part of his weight with the uninjured hand on a table or the back of a chair, he bends forward sufficiently to allow the injured arm to hang perpendicularly. The shoulder is then carried through full circumduction. At first it may be necessary for the patient to have some assistance; this can be given by a nurse or a member of the family.

A simple exercise for the fingers can be supplied by allowing the patient to squeeze a soft rubber ball. This ball should be a bit smaller than the ordinary tennis ball and should be much softer.

There are several simple exercises which involve the use of all free joints of the injured extremity. In this exercise two glasses or capped jars containing different colored fluids are used. One is placed on a shelf in easy reach above the patient's head, the other on a table. The exercise consists in interchanging the places of the glasses a given number of times according to instructions. This exercise develops finger motion and grip, and carries the shoulder and the elbow through full ranges of motion.

REHABILITATION OF THE INJURED HAND

Lieut. Comdr. Sidney Baron Hardy, (M.C.) U.S.N.R.
St. Albans, Long Island, New York

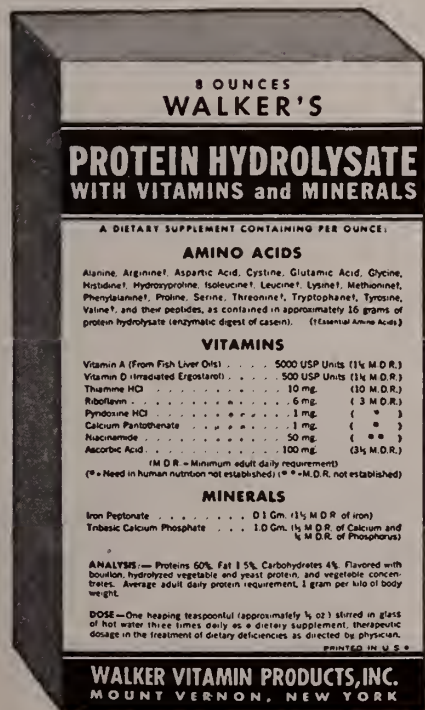
Plastic Surgery Service, U. S. Naval Hospital
In AMERICAN JOURNAL OF SURGERY, 72:3:352
September 1946

Bunnell makes the statement that "Next to the brain the hand is the greatest asset to man, and to it is due the development of man's handiwork."

Certainly, during this last war man has perfected much varied mechanized equipment all demanding some degree of manipulation by hand and this in turn, has increased the incidence of hand injuries. The instinct to protect one's face and to use the hands to help one to safety in the face of danger also subject them to a great probability of injury. Indeed, it is hard to conceive that a person could be injured in combat who would not receive, also, some injury to his hands due to this instinct to protect himself. Injuries

(Continued on page 56)

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PHYSICAL MEDICINE (Continued)
due to these causes augment the large number of hand injuries sustained in combat as the result of direct enemy fire.

Comments

Rehabilitation of the injured hand is in most instances probably one of the most difficult tasks which the surgeon is called upon to perform. By careful examination and planning, together, with meticulous surgery, this work can be accomplished with satisfactory results in many cases. Good cooperation on the part of the patient in taking active hand exercises and following physiotherapy treatments is most essential for good results.

THE PROBLEM OF MENISCECTOMY IN THE SOLDIER

Lt. Col. W. Alexander Law, Royal Army Medical Corps
In *JOURNAL OF BONE AND JOINT SURGERY*,
28:3:496
July 1946

Under Service conditions, injuries to the knee joint are as frequent as they are important; and they form a considerable source of sickness, with consequent hospitalization and loss of man power. A proportion of these injuries are meniscus lesions, and an attempt has been made in this series of cases to determine the value of operative treatment.

In a Base Hospital during the first six months of 1944, 120 "clean" knee-joint explorations were performed, and in 104 instances meniscectomy was carried out; of the remaining cases, missiles were removed from the joint in nine, loose bodies were removed in four, and nipping of enlarged infrapatellar pads of fat was found in three.

Careful selection of these cases was made in order to exclude those in which there were accompanying pathological changes, — such as osteoarthritis, osteochondritis dissecans, undue laxity of collateral or cruciate ligaments, and gross wasting and weakness of the quadriceps muscle. These patients were regarded and treated by physiotherapy. The object of operation, therefore, was to keep the soldier in his category — usually that of the fighting man — and to enable him to return to full duties as rapidly as possible.

The problem is not quite the same as in civil life, where the patient requiring a meniscus operation is very frequently the athletic young man of good physique, with muscular development

(Continued on page 58)

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PHYSICAL MEDICINE (Continued)

above the average. The British fighting soldier, although physically very fit, does not always have the muscle power of the first-class athlete; and yet, in the course of his training and actual fighting, he is subject to stresses and strains on the knee joint far in excess of those encountered in ordinary recreational activities. It is reasonable, therefore, to anticipate the necessity for a longer rehabilitation period in the case of the fighting soldier than in his civilian counterpart.

The initial injury occurred while the patient was playing football in fifty-six cases (54 percent); during military training or actual battle in twenty-three cases (22 percent); and as a simple accident, such as a fall or while kneeling at work, in twenty-five cases (24 percent). The strictly military causes included falls into bomb craters and diving for slit trenches (ten cases); jumping out of vehicles (three cases); blows from the starting handles of vehicles (four cases); parachute jumps (two cases); being caught and twisted in barbed wire (one case); and being blown over by blast (two cases). In one case a tiny missile had ripped the cartilage on its passage through the joint, and signs of internal derangement persisted until after meniscectomy, nine months later.

Conclusions

Meniscectomy is an operation of value in the soldier only in carefully selected cases of internal derangement of the knee joint. Under campaign conditions the operation is not justified in the presence of osteo-arthritis, osteochondritis, or weakness of ligaments or muscles.

Total meniscectomy is preferable in order to

(Continued on page 60)

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Saint Louis 10, Missouri

PHYSICAL MEDICINE (Continued)
exclude multiple meniscus lesions, and does not appear to cause excessive operative trauma to the joint.

Preoperative and postoperative physiotherapy are of as great importance as operative technique.

The majority of patients can be expected to be fit for duty within two months after operation, but in actual practice, for troops in the forward area, three months' absence from the unit is to be expected.

MOBILIZING THE QUADRICEPS TO INCREASE ACTIVE MOVEMENTS IN STIFF KNEES

Captain M. Alexandroff, R.C.A.M.C., Toronto
Clinical and Laboratory Notes

In CANADIAN MEDICAL ASSOCIATION
JOURNAL, 55:4:390

October, 1946

A method of operation for increasing the range of movement in stiff knees (quadricepsplasty) has been described by T. C. THOMPSON. In his article he states that it is beneficial for the patient to have had quadriceps-strengthening exercises prior to operation. I have drawn up a special program for patients with limited knee

movement which resulted in only a few of the intractable cases requiring operation. It consists first of remedial exercises and secondly where necessary of novocaine injection and manipulation.

The purpose of the exercise is to: (1) re-educate quadriceps group; (2) increase size of this muscle group; (3) use the results for increasing the angle of active movement in the affected joint. Full results from this program in about 35 cases were not obtained because the Remedial Exercises Instructors, who were carrying out the program, were removed from the hospital just as results were becoming apparent. However, it was evident that many of these patients, if given sufficient and supervised instruction specific exercises would be candidates for return to civilian duty.

SUMMARY

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Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

PENICILLIN IN NEUROLOGY: By Earl Walker, M.D., Associate Professor of Neurological Surgery, The University of Chicago and Herbert C. Johnson, M.D., Resident Neurological Surgeon, The University of Chicago. Charles C. Thomas, Publisher, Springfield, Illinois. 1946. Price \$5.00.

OUTLINE OF THE SPINAL NERVES: By John Favill, A.B., M.D., F.A.C.P., Clinical Professor of Neurology (Rush) University of Illinois College of Medicine, Attending Neuropsychiatrist, Presbyterian Hospital, Chicago. Charles C. Thomas, Publisher, Springfield, Illinois. 1946. Price \$3.75.

MUSCLE TESTING: Techniques of Manual Examination: By Lucille Daniels, M.A., Director and Associate Professor of Physical Therapy, Stanford University; Marian Williams, M.A., Assistant Pro-

fessor of Physical Therapy, Stanford University; and Catherine Worthingham, M.A., Director of Professional Education, The National Foundation for Infantile Paralysis, Inc. Designed and Illustrated by Harold Black with 349 Diagrammatic Line Drawings. 189 pages. Philadelphia and London: W. B. Saunders Company, 1946. Price \$2.50.

CLINICAL HEMATOLOGY: By Maxwell M. Wintrobe, M.D., Ph.D. Professor of Medicine, University of Utah, School of Medicine, Salt Lake City, Utah; Formerly Associate in Medicine, Johns Hopkins University, Associate Physician, Johns Hopkins Hospital, and Physician-in-charge, Clinic for Nutritional, Gastro-intestinal and Hemopoietic Disorders, Baltimore, Maryland. Second Edition, Thoroughly Revised. Illustrated with 197 engravings and 14 plates, 10 in Color. Lea and Febiger, Philadelphia, 1946. Price \$11.00.

Streptomycin is not to be regarded as a substitute for other and proved effective forms of treatment of tuberculosis. Treatment with this antibiotic should be postponed or denied to those tuberculous patients who are making satisfactory progress and who are likely to achieve the arrest of their disease as a result of conventional therapeutic methods. H. Corwin Hinshaw, M.D., William H. Feldman, D.V.M. and Karl H. Pfuetze, M.D., JAMA, Nov. 30, 1946.

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HEAVY SMOKERS SUSCEPTIBLE TO LEUKOPLAKIA — A MOUTH DISEASE

Cleveland Doctor Finds Pipe Smokers Most Often Affected; Cessation of Smoking Best Treatment

A Cleveland physician, Clyde L. Cummer, warns heavy smokers to beware of leukoplakia — a disease which coats the lining of the cheeks, the gums, tongue and roof of the mouth with white, thickened patches that sometimes crack.

Writing in the November 2 issue of *The Journal of the American Medical Association*, Dr. Cummer says he examined 587 patients, 315 of whom were men. Six of these men, in the age group between 40 and the late 70's, had leukoplakia.

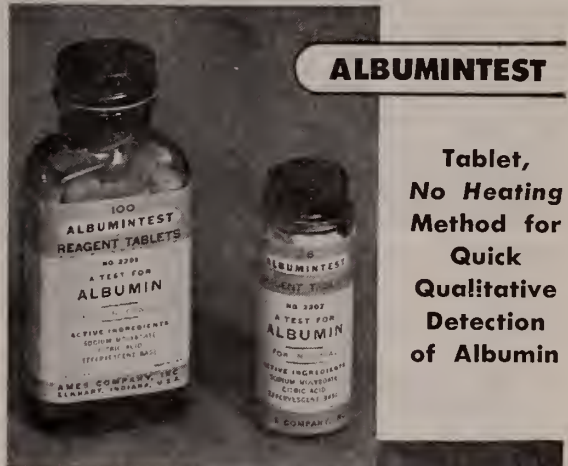
After reviewing medical literature, Dr. Cummer found that 53 cases of leukoplakia involving the roof of the mouth have been reported to date. Of the 51 in which the sex was mentioned, 49 occurred in men and two in women. All but three of these patients were tobacco smokers, with pipe smoking being incriminated more often than cigar or cigaret smoking.

"The type of smoking is important," he says. Dr. Cummer cites another investigator who expressed his conviction that the pipe is the most irritating agent and emphasized the importance of the method of smoking in the localization of leukoplakia. It is suggested that pipe smoking is especially likely to produce palatal changes since the steam of hot and unfiltered smoke is delivered against the roof of the mouth, whereas cigaret and cigar smoke is to some extent filtered through the stub or butt and is diffused through entire oral cavity."

The most effective treatment for this disease is to stop smoking, especially pipe smoking. In the case of inveterate, confirmed smokers, the author suggests the wearing of a denture to protect the palate.

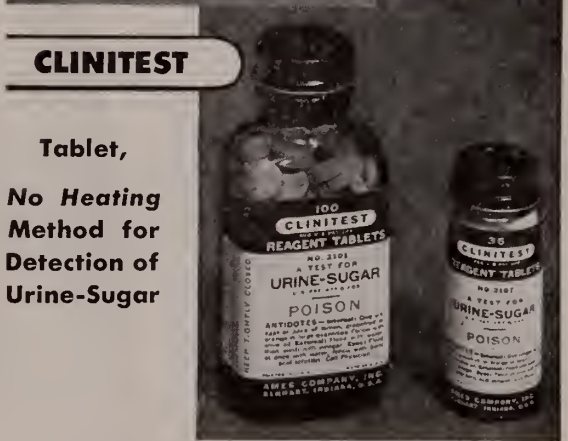
We need not assume that tuberculosis is permanently and ineradicably engrafted upon our civilization. On the contrary, the evidence indicates that in this country the balance is already against the survival of the tubercle bacillus; and we may reasonably expect that the disease will eventually be eradicated. There can be no certainty of this result, but it is an expectation sufficiently well grounded to justify shaping our tuberculosis control program toward this definite end. Wade Hampton Frost, *Am. Jour. of Pub. Health*, August, 1937.

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CONSIDER PHYSICAL MEDICINE SEPARATE MEDICAL SPECIALTY

Journal Author Urges Practitioners To Avail
Themselves Of Experience And Advice Of
Physiatrists

Physical medicine has progressed to such a degree that it must be considered a separate and distinct medical specialty, according to an article in the November 9 issue of *The Journal of the American Medical Association*.

The author, George Morris Piersol, M.D., of Philadelphia, urges the practicing physician to avail himself of the "experience and advice" of the physiatrist in the same way he avails himself to the services of the roentgenologist, the gastroenterologist, the surgeon and other qualified specialists. The physiatrist is a new term applied to physicians who are qualified to employ the physical and other effective properties of light, heat, cold, water, electricity, massage, manipulation, exercise and mechanical devices for physical and occupational therapy in the diagnosis and treatment of disease.

"Closer cooperation and better understanding between the general practitioner and the specialist in physical medicine must be fostered," Dr. Piersol says, "if the large number of patients who need physical therapy are to receive the most effective treatment."

Dr. Piersol, who is from the Center for Instruction

and Research in Physical Medicine at the University of Pennsylvania, believes that the public is "acutely interested in the worldwide problem" of rehabilitation, which has been defined as the restoration of the handicapped to the fullest physical, mental, social, vocational and economic usefulness of which they are capable.

"Thousands of veterans returning to various communities are suffering from, and many will continue for years to suffer from, injuries and disabilities which require for their proper management physical and occupational therapy. . . . Those veterans who, during their service experience, have learned the value of physical therapy will be justified in insisting on a continuation of such treatment from their family physician.

"It is a mistake to think that problems of reeducation or reconditioning are limited to disabilities incurred as the result of war. In a great nation such as this, in which the bulk of the population comprises workers engaged in all forms of activity, the annual toll of industrial accidents far exceeds the number of the battle casualties of any war. When to this figure is added the appalling number of traffic accidents and the indeterminate number of nonindustrial accidents that occur in the home or elsewhere, the toll of civilian injuries that sooner or later require some form of reeducation reaches a staggering total. In 1940 industrial injuries alone were listed at \$1,890,000. The loss of time as a result of these injuries, if deaths and permanent disabilities are included, is estimated at 233,840,000 work-

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ing days, the equivalent of the full time work of 780,000 workers."

Specialists in the field point out that rehabilitation through physical therapy, occupational therapy, physical training and educational and recreational programs fills the gap between the customary end point of medical attention and the real necessities of many patients.

Dr. Piersol says that reluctance to employ physical forms of treatment is "in no small degree based on widespread misconceptions of what is involved in this type of therapy. It is believed that effective physical therapy requires the use of complicated and expensive apparatus. The experience of a department of physical medicine in a general hospital shows that the contrary is true.

"As is the case with all therapeutic agents that bring about definite physiologic reactions, the procedures employed in physical medicine are capable of doing harm as well as good. Not only is it essential to select the proper procedure or combination of procedures, but their dosage must be regulated in regard to intensity, duration and frequency. Disappointing and at times harmful results have frequently been recorded because of lack of attention to or ignorance of these details."

On the basis of a survey of the prescriptions which referring physicians sent to a department of physical medicine, Dr. Piersol found that 57 per cent of the conditions were represented by chronic arthritis, neuromuscular pains of undiagnosed origin, strains and fractures.

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PENICILLIN SPRAY ECONOMIC WAY TO TREAT RESPIRATORY DISEASES

Drug Has Local Soothing Effect Which Relieves
Soreness In Throat And Coughing,
Doctor Says

Inhaling penicillin spray is more economical and effective for infections of the respiratory tract than injecting the drug into the veins or muscles, according to the latest report appearing in the October 5 issue of *The Journal of the American Medical Association*.

Frank W. Morse, M.D., of Lawrencetown, Nova Scotia, says that by this treatment penicillin is placed at the site of infection and has not only a strong local effect but it is absorbed into the blood stream and aids the natural body defenses to overcome the condition. Moreover, "it also has a definite local soothing effect which relieves such discomfort as soreness in the throat, painful, frequent coughing and the sensation of dryness in the mucous membranes."

The author maintains that the "penicillin seems to act in a more efficient manner when given by spray than by injection. It is common to give 160,000 units daily by the intramuscular route in pneumonia, whereas in treatment of one case of pneumonia in this series 40,000 units was given daily for four days, a total dosage of 160,000 units in all. In other words, the total dose in this case treated by spray would supply

only one day's dose if given intramuscularly. This saving of penicillin is apparently due to the fact, that, first, the greatest concentration of penicillin is directly on the infected site, the air sacs, and secondly, it is absorbed into the blood stream and thus has a systemic effect as well."

Most of the 25 patients who were treated by this physician were infected during the influenza epidemic which began in this locality about January 3, 1946. There were only two failures in this series, due to the uncooperativeness of the patients.

Penicillin spray is produced by a hand-operated bulb atomizer. The patient inhales and then holds his breath, allowing the suspended penicillin to settle on the infected mucous membranes.

Personally convinced of the advantages of penicillin spray, the author summarizes them as follows:

1. The absence of toxicity in contrast to that of the sulfonamides.
2. The absence of dangers due to untrained personnel using the intramuscular route of administration.
3. The ease of transporting and caring for the materials, the atomizer and penicillin.
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An editorial in the same issue of *The Journal* states that penicillin spray is probably the simplest technic thus far employed for the treatment of respiratory conditions. "The results recorded are encouraging," it says, adding: "However, much more needs to be done on the subject of penicillin administration by inhalation before this procedure can be considered of established scientific merit. Controlled studies are necessary. Large enough numbers of patients with a single respiratory disease need to be studied and compared with similar groups treated without penicillin and with penicillin administered by the usual intramuscular route. Comparative studies should be made on the value and accuracy of the various types of nebulizers and on their effectiveness in delivering the penicillin where it will do the most good. Important also are careful studies on the optimum dosage of penicillin when given by spray, the preferred frequency of administration and the most desirable medium for dissolving the penicillin."

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**HEADACHES RESULTING FROM
 TENSION RAPIDLY RELIEVED
 WITH SEDATIVE**

Sodium amytal, a sedative, will relieve such symptoms as headache resulting from tension or anxiety within one to five minutes when injected into the veins, according to three New York doctors writing in the current issue of the *Archives of Neurology and Psychiatry*, published by the American Medical Association.

The authors—Capt. Samuel Susselman and Capt. Fred Feldman, Medical Corps, Army of the United States, and S. Eugene Barrera, M.D., Albany, N. Y.—state that when symptoms are persistent and no organic cause can be discovered, the patient should receive an injection of sodium amytal. They claim that this sedative is of diagnostic value because it is a quick method of separating symptoms of organic disease from tension symptoms.

In more than 80 patients, treated over a period

of nine months, the hospitalization period was shortened for many because of the use of this sedative.

"The patient in whom the test is clearly successful will have no residuum of distress but will express, often spontaneously, great relief and complete freedom from pain and a feeling of well-being," according to the physicians. They state that "this rapid lifting of discomfort is especially impressive to both patient and physician in cases of long-standing headache, which have remained unrelieved for months, or even years."

The authors point out that not only will this sedative relieve symptoms due solely to tension but it also will bring relief to patients with organic disease whose symptoms have been intensified by tension and anxiety.

Isolation of the infectious cases of tuberculosis, always a major part of a control program, is of the greatest importance in the large cities, where because of the crowded, fluid conditions of urban living, the contacts of an infectious case are likely to be more numerous than in small communities. Elizabeth H. Pitney and Richard W. Kasius, Pub. Health Rep., Oct. 4, 1946.

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NERVOUS patients are accepted by us for observation and diagnosis as well as treatment.

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Intractable exfoliative lip dermatoses may often be traced to eosin lipstick dyes. Remove the offending irritants, and the symptoms often disappear. In lipstick hypersensitivity, prescribe AR-EX NON-PERMANENT LIPSTICK—so cosmetically desirable, yet free from all known irritants. Send for Free Formulary.

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 NON-PERMANENT
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SHOULD VITAMIN D BE GIVEN ONLY TO INFANTS?

VITAMIN D has been so successful in preventing rickets during infancy that there has been little emphasis on continuing its use after the second year.

But now a careful histologic study has been made which reveals a startlingly high incidence of rickets in children 2 to 14 years old. Follis, Jackson, Eliot, and Park* report that postmortem examination of 230 children of this age group showed the total prevalence of rickets to be 46.5%.

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*R. H. Follis, D. Jackson, M. M. Eliot, and E. A. Park: Prevalence of rickets in children between two and fourteen years of age, *Am. J. Dis. Child.* 66:1-11, July 1943.

MEAD'S Oleum Percomorphum With Other Fish-Liver Oils and Viosterol is a potent source of vitamins A and D, which is well taken by older children because it can be given in small dosage or capsule form. This ease of administration favors continued year-round use, including periods of illness.

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The
ILLINOIS
Medical Journal

VOL. 91  NO. 3

March, 1947

In This Issue

Application of the Betatron
in Cancer Therapy

+

Conservative Renal Surgery

+

. . . And Other Original Articles

+

(See page 35 for complete Table of Contents)

ANNUAL MEETING, ILLINOIS STATE MEDICAL SOCIETY
PALMER HOUSE CHICAGO, MAY 12, 13, 14, 1947

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



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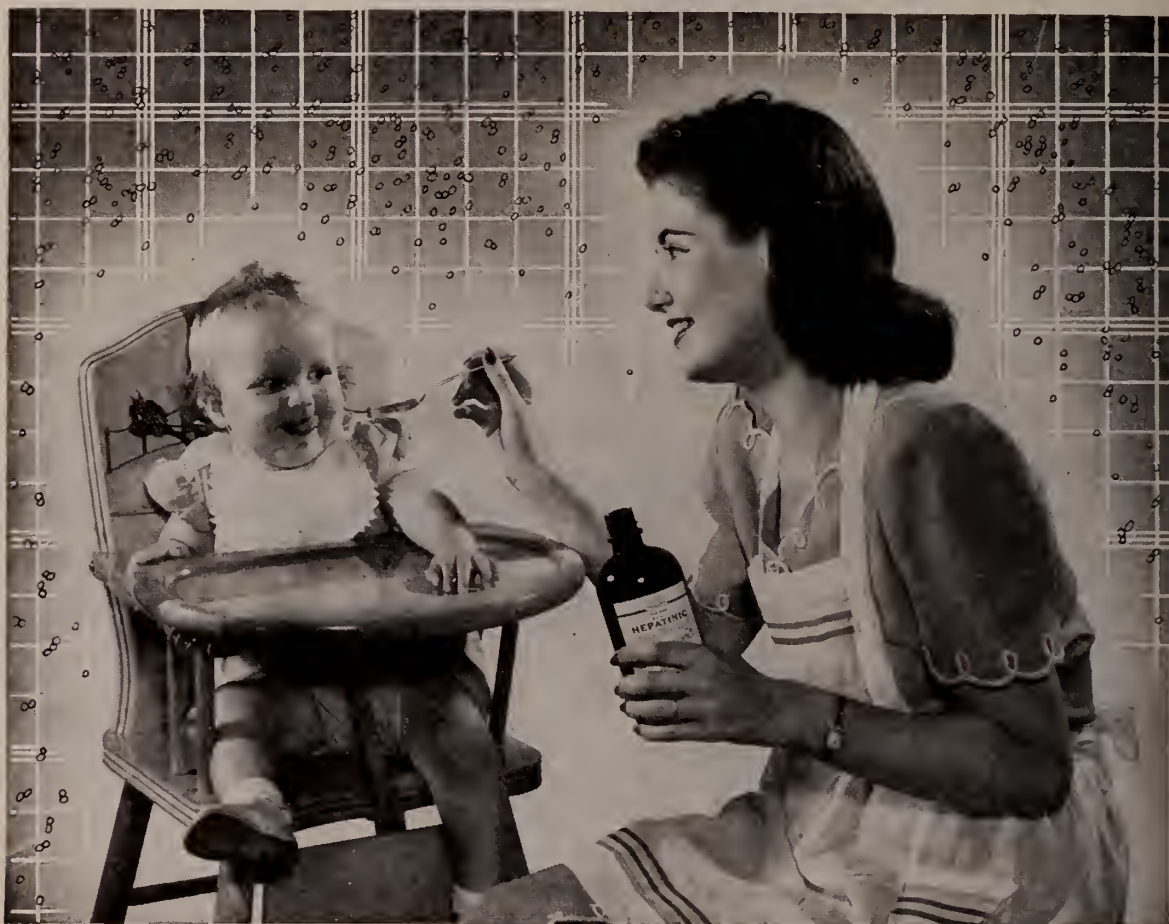
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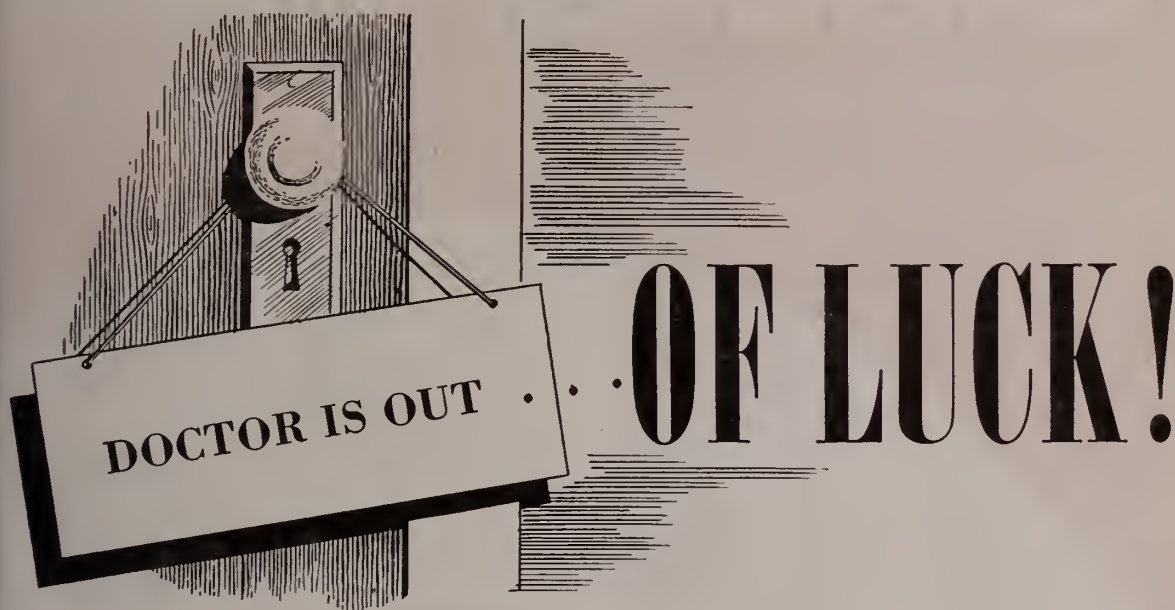
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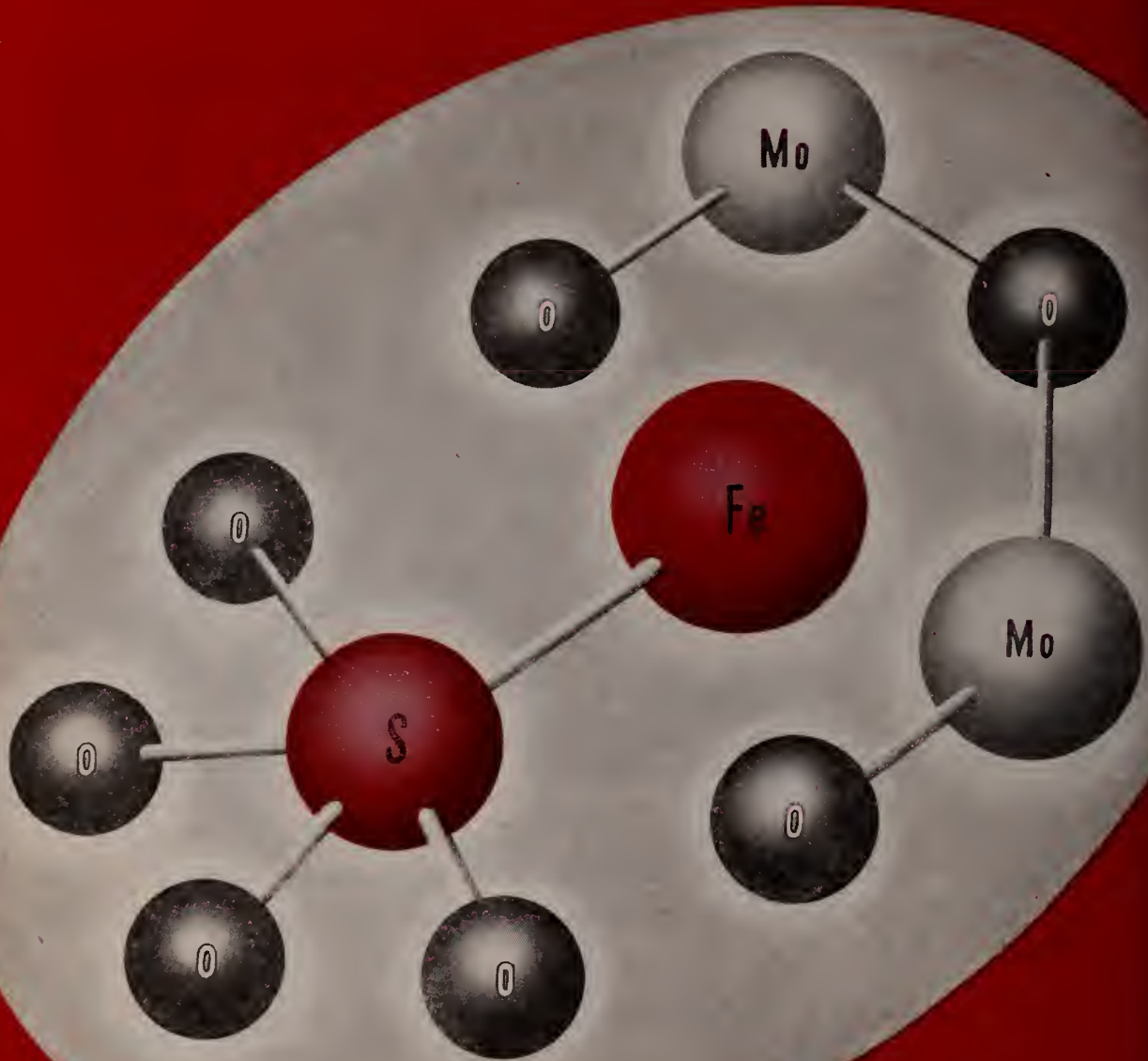
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*Healy, J. C.: Hypochromic Anemia: Treatment with Molybdenum-Iron Complex, The Journal-Lancet, 66:218-221 (July) 1946.



Mol-iron

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Dietary Dub!

He may not be one of your patients, but you know his dietary counterparts: Men—and women—too deeply immersed in “important” affairs to take time to eat properly. With them, scanty breakfasts and hasty, badly balanced lunches are the rule; dinners which fail to compensate for the defects of earlier meals, far from uncommon. The inevitable result is an increase in the ranks of the self-made victims of borderline vitamin deficiency. You know them: the ignorant and indifferent, food faddists, persons on self-imposed and badly balanced reducing diets, alcoholics, excessive smokers and many others. ● You know, too, that

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*Before injecting aspirate to insure
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Elix. Alurate ℥ iii 90 cc
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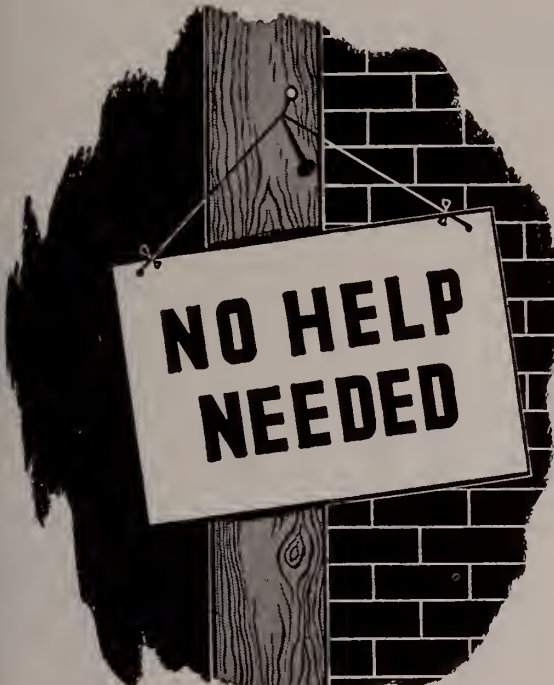
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1. Caravati, C. M., and Whims, C. B.: General Manifestations of Salicylism, South. M. J. 38:722-726 (Nov.) 1945.
2. Litchfield, H. R.: A Clinical Study of Rheumatic Fever, with Special Reference to Salysal Therapy, Arch. Pediat. 55:135-142 (March) 1938.

SALYSAL

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Effective Salicylate Therapy without Sodium Bicarbonate

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- References: 1. Dodd, K. and Minot, A. S.: *J. Pediat.*, 8:442, 1936.
2. Dodd, K. and Minot, A. S.: *J. Pediat.*, 8:452, 1936.
3. Sahyun, M.: *Am. J. Dig. Dis.*, 13:59, 1946.

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1. Greene, R. R.: Int. Abst. Surg., 74: 595, 1942

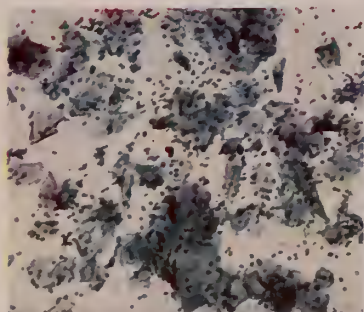
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Di-Ovocylin in 1-cc. ampuls, in concentrations of 0.166, 0.333, 1.0 and 1.66 mg., in cartons of 3, 6, 50 and 100.

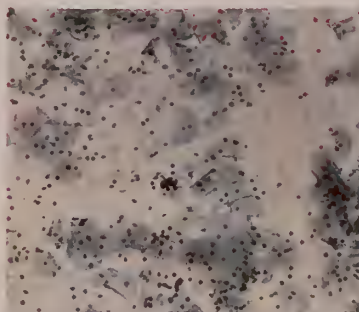
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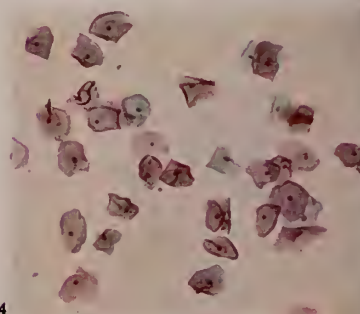
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ONE. The vaginal smear in untreated menopause shows a severe estrin deficiency, preponderance of leukocytes and atrophy of the vaginal mucosa.

TWO AND THREE. These smears demonstrate the effects of partial estrin replacement therapy during treatment. The smears appear clearer, diminished leukocytes, some cornification.

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Microscopic slides from Dr. E. Kost Shelton, Shelton Clinic, Los Angeles, Cal.



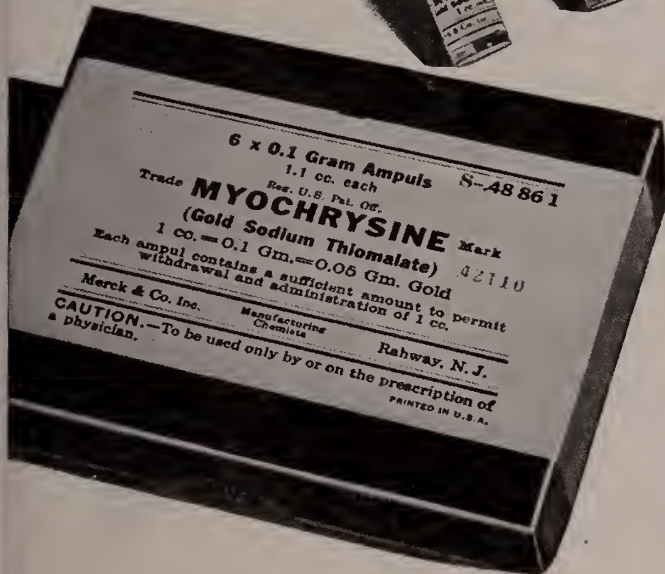
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SUMMIT NEW JERSEY



In Canada: Ciba Company Limited, Montreal

GOLD THERAPY in Rheumatoid Arthritis



THE consensus of clinicians who have had considerable experience with aurotherapy is that gold, despite its recognized toxicity, is the most effective agent available for the treatment of active rheumatoid arthritis.

The following statements, quoted from the article entitled, "The Use And Abuse Of Gold Therapy In Rheumatoid Arthritis," by Bernard I. Comroe, M. D. (*J.A.M.A.* 128:848-851, July 21, 1945), constitute an excellent summary of the present position of gold therapy in arthritis:

- 1 Gold is of no value in any form of joint disease except rheumatoid arthritis.
- 2 Gold does not benefit all patients with rheumatoid arthritis.
- 3 Gold is not the final answer to the treatment of rheumatoid arthritis.
- 4 Toxic symptoms may appear at any time during this form of therapy.
- 5 From 10 to 20 per cent or more of patients who have received gold therapy relapse after stopping the drug.
- 6 Extreme care must be used during gold therapy, and the physician must be familiar with the details of such treatment before undertaking this.
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Literature on request

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Manufacturing Chemists





to combat

depression characterized by

"chronic fatigue"

Depressed patients "... suffering from psychomotor inhibition complain of feeling tired, of not being able to get started on their daily tasks, and of an abnormal inclination to procrastinate. They make up their minds that they are going to do a certain thing but they never seem to get to it. Everything seems too big for them . . ."*

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Benzedrine Sulfate is particularly valuable in the presence of "chronic fatigue". It will, in most cases, help to overcome the depression and thus enable the patient to make a sincere and constructive effort to surmount his difficulties.

*Kamman, G. R.: Fatigue as a Symptom in Depressed Patients, *Journal-Lancet* 65:238 (July) 1945.



Tablets and Elixir

benzedrine sulfate

(racemic amphetamine sulfate, S.K.F.)

b

Smith, Kline & French Laboratories, Philadelphia, Pa.



Available Now...

Digitoxin

Stearns

FOR ACCURATE DOSAGE BY WEIGHT

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DIGITOXIN Stearns—the chief active constituent of *Digitalis purpurea*—is a pure microcrystalline compound with definite physico-chemical properties. Uniform in composition, it is standardized by weight—permitting the prescription of precise dosages—abvitiating the confusion of "frag" or "cat" units.

Administered orally, Digitoxin Stearns is approximately one thousand times as potent, weight for weight, as Digitalis U. S. P.; 1 mg. of Digitoxin produces the same effect in man as 1 Gm. of digitalis.

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DIGITOXIN Stearns is rapidly—and presumably completely—absorbed from the gastro-intestinal tract . . . oral administration of the dose required is equally as effective as intravenous.

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excellent

DIGITOXIN Stearns is free of inert, therapeutically undesirable materials. Small doses produce full cardiac effects with virtual freedom from nausea and vomiting. Single dose therapy for full digitalization is clinically practicable.

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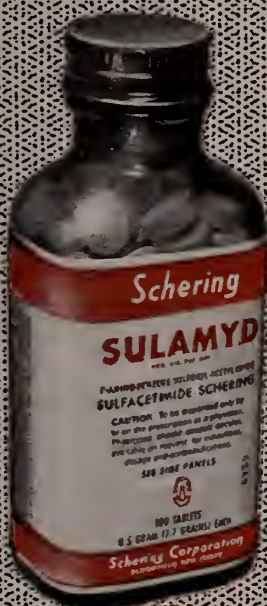
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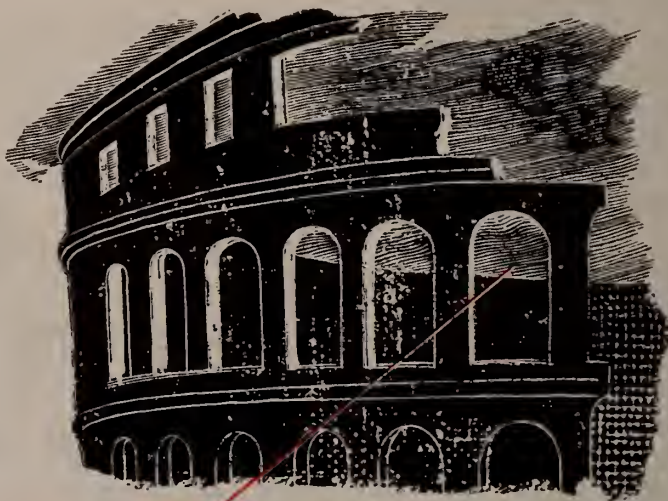
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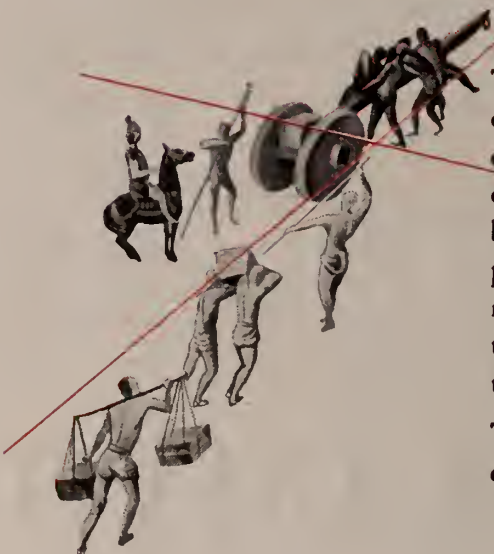
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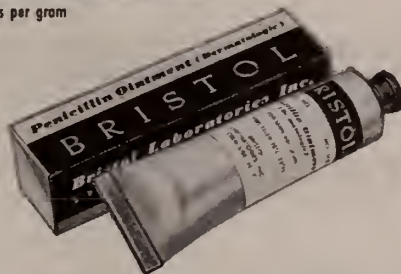
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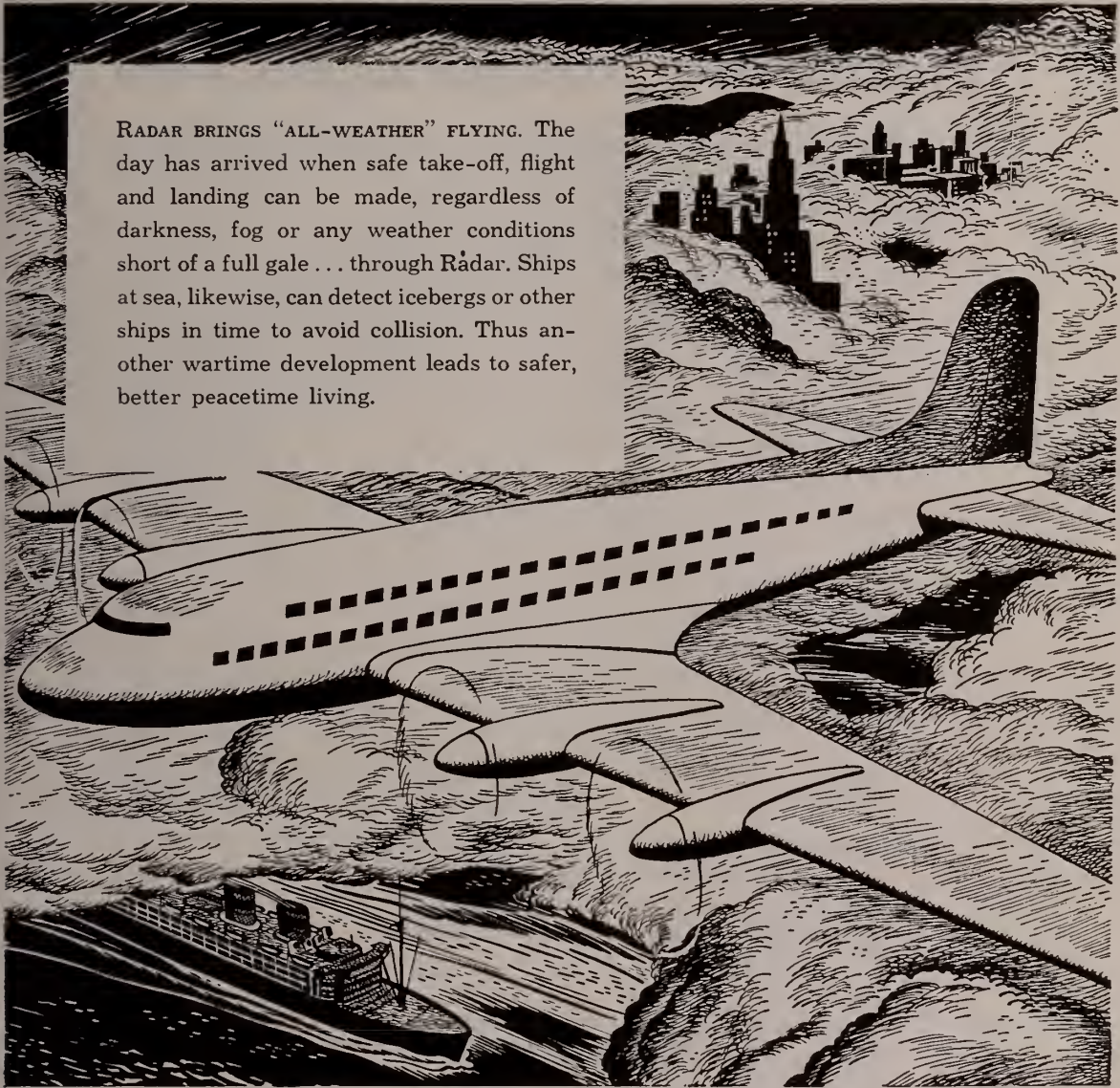
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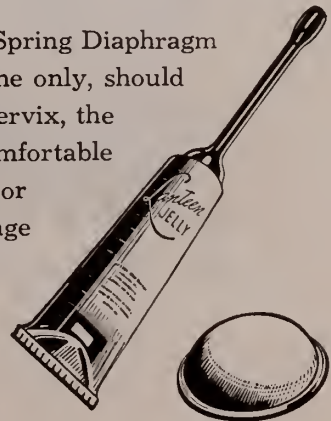


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In patients sustaining severe burns, the daily protein loss may be equivalent to 400 cc. of plasma.²

In a study embracing 23 burned patients, nitrogen balance determinations revealed excessive urinary nitrogen excretion. Nearly all patients were in negative nitrogen balance which was most marked during the first ten days.³

It thus appears that protein destruction and loss are prominent and potentially detrimental sequelae of trauma, and that every effort must be made to restore nitrogen equilibrium as quickly as possible to prevent the many deleterious consequences of protein depletion. The recommendation has been voiced that "whenever possible, protein losses or deficiencies should be corrected by oral feeding."⁴

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¹ Howard, J. E.: Bull. Johns Hopkins Hosp., 74:313 (May) 1944.

² Co Tui, C.; Wright, A. M.; Mulholland, J. H.; Barcham, T., and Breed, E. S.: Ann. Surg. 119:815-823 (June) 1944.

³ Hirshfeld, J. W.; Abbott, W. E.; Pilling, M. A.; Heller, C. G.; Meyer, F.; Williams, H. H.; Richards, A. J., and Obi, R.: Arch. Surg. 50:194 (Apr.) 1945.

⁴ Lund, Chas. C., and Levenson, S. M.: J. A. M. A. 128:95 (May 12) 1945.

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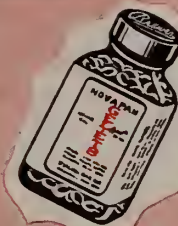


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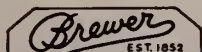
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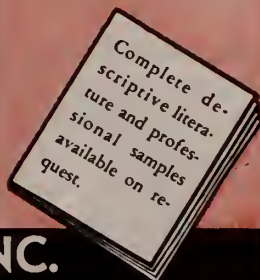
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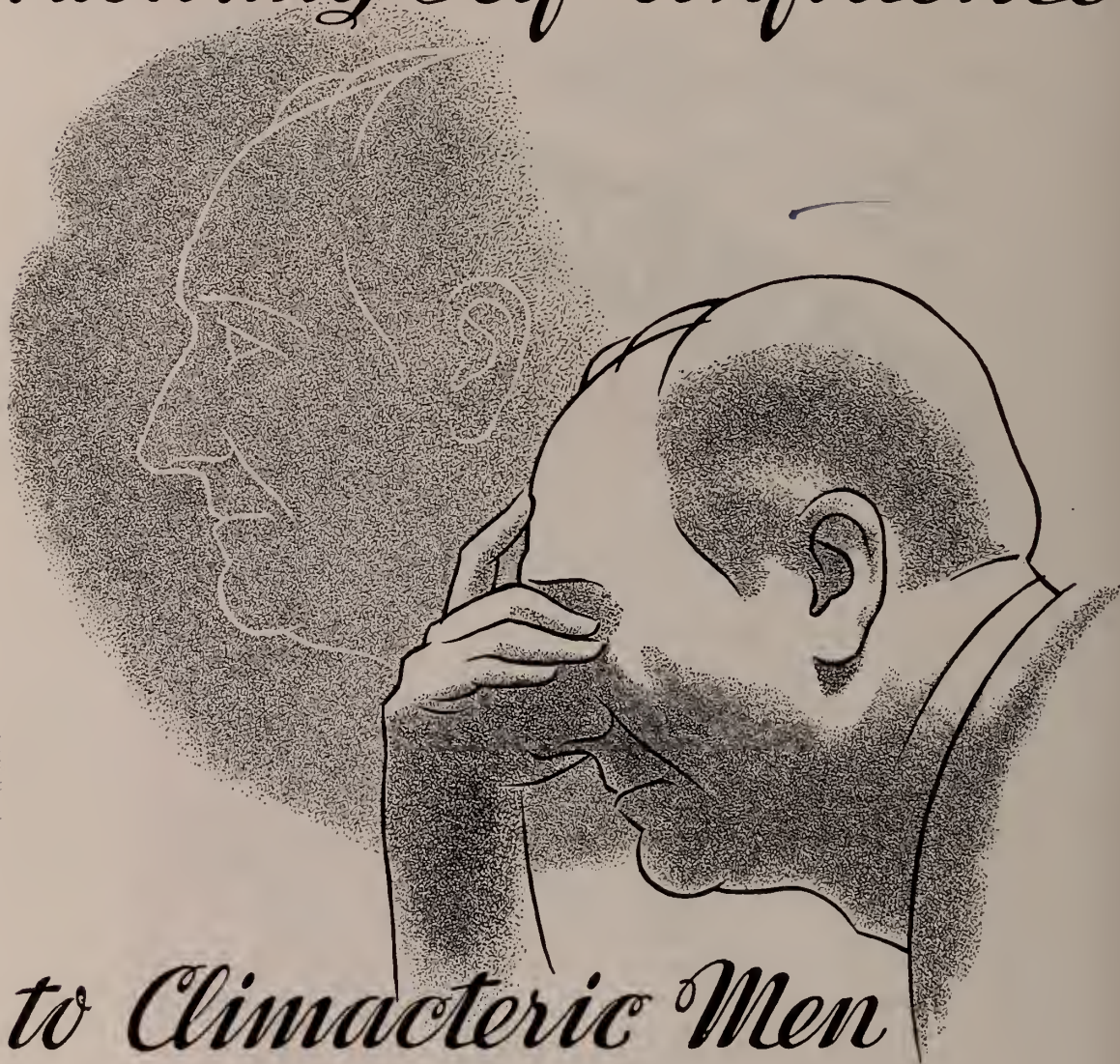
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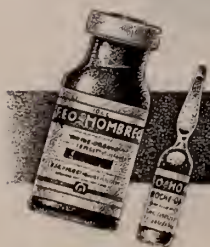


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(testosterone propionate)

(1) A. A. Werner, *J.A.M.A.*, 132:188, 1946. (2) A. A. Werner, *J.A.M.A.*, 127:705, 1945.

*Reg. U. S. Pat. Off.

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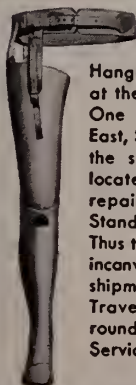
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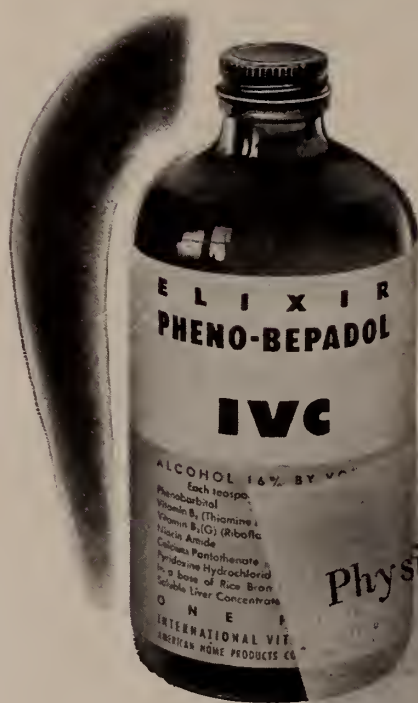


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5 mg. Nicotinamide, 0.3 mg.
Calcium Pantothenate, 0.15 mg.
Pyridoxine Hydrochloride.
DOSAGE: "Pheno-Bepadol IVC"
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MERTHIOLATE is the trade-mark of Eli Lilly and Company for its brand of sodium ethyl mercuri thiosalicylate. It is an approach to the ideal antiseptic. Because 'Merthiolate' has prompt germicidal action, sustained antiseptic effect, and high bacteriostatic value, it is an antiseptic of choice among many discerning physicians. Moreover, 'Merthiolate' is compatible with body tissues, nonirritating, and low in toxicity. The following preparations of 'Merthiolate' are available: tincture, 1:1,000; solution, 1:1,000; jelly, 1:1,000; suppositories, 1:1,000; ointment, 1:1,000; and ophthalmic ointment, 1:5,000.

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Pneumoconiosis

The field of medical research has many facets. Eli Lilly and Company has had the privilege of cooperating with investigators in many specialized fields of medicine. Products for which the company is responsible are promoted and distributed through professional channels exclusively.

PNEUMOCONIOSIS is particularly prevalent among workers in mines, smelteries, cement plants, and quarries. For years miners had experienced a high incidence of respiratory disorders. It was not until careful medical investigations had been made, however, that the causes were determined and steps taken to prevent recurrences. Pneumoconiosis is today a major problem of medical research. Other industries have their own peculiar hazards. As new materials and processes are introduced into industrial life, new techniques of detection, prevention, and treatment must be developed. This is the task of physicians concerned with industrial medicine. Through their efforts the level of health among industrial workers continues to improve.

The Illinois Medical Journal

March, 1947

VOL. 91, NO. 3

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

CONGRESS BUSY WITH LABOR, TAXES, COMMERCE, BUT GETS MANY HEALTH BILLS, TOO

Editor's Note:—Since the following address was delivered, Senator Taft has introduced S. 545, the National Health Act of 1947, which would centralize all health activities of the federal government except those of the armed forces under a single agency to be known as the National Health Agency. The bill would establish a National Health Administrator, appointed by the President with the consent of the Senate and pay \$15,000 a year, who must be a doctor of medicine and "outstanding in the field of medicine."

The new agency would take over, among other things, the Public Health Service, the maternal and child health work, and the Food and Drug Administration.

Provision is made for a comprehensive national medical care survey by individual states (for which \$3,000,000 would be appropriated) in preparation for a general health program for low income groups, for which \$200,000,000 is appropriated for each of the next five years.

A National Medical Care Council of eight persons is provided, four of whom must be doctors, to be paid on a \$25.00 per diem basis.

Dental care is also provided.

The 80th Congress, with more than one-fifth of the members of each house new and inexperienced, is under tremendous pressure for tax re-

duction and labor control legislation, but is also getting a flood of bills proposing national health measures of all sorts.

That was the report brought February 9 to the A.M.A. Council on Medical Service and Public Relations by Dr. Joseph S. Lawrence, director of its Washington office, at its annual meeting in the Palmer House, Chicago.

Fewer bills had been introduced in all categories except labor at the time of the report, Dr. Lawrence said, yet his office was already watching nine Senate and eighteen House bills, in addition to three resolutions. And there are more to come, he added, including a redrafting of the Taft health bill of the last Congress.

Among those already introduced were four asking large appropriations for cancer control and research. One, by Representative Everett M. Dirksen of Pekin, Illinois (Republican), asks an appropriation of \$50,000,000; the others ask \$100,000,000 each, while at the same time the National Cancer Institute of the U. S. Public Health Service, which had \$1,700,000 this year, is asking approximately \$7,000,000 for next year.

Another bill being closely scrutinized is the anti-vivisection proposal for the District of Columbia, Dr. Lawrence said. It has been referred to the sub-committee on health of the House District of Columbia Committee, headed by Dr. Arthur L. Miller of Kimball, Neb., a graduate of Loyola Medical College, Chicago, and

representative (Republican) of Nebraska's 4th District.

Dr. Lawrence called the attention of the Council especially to S. 472, the bipartisan "Education Finance Act of 1947," to provide federal subsidies for equalizing educational opportunities among several states by appropriating \$150,000,000 for distribution according to a stated formula.

The bill is not a health bill. The interest of the medical profession's representatives is based on the mechanism set up to distribute the fund, which Dr. Lawrence indicated might be adopted in any future health bills, and which leaves control of expenditures with individual states. He summed it up in these words:

"The U. S. Commissioner of Education shall certify regularly to the Secretary of the Treasury the amounts allotted under the formula of this Act to each state that has accepted the provisions of the Act, and the Secretary of the Treas-

ury shall, through the Division of Disbursement of the Treasury Department, and prior to audit or settlement by the General Accounting Office, pay to the Treasurer of such states the amount certified for each fiscal year. Each such state treasurer shall account for the monies received and shall pay out such funds only on requisition of the State educational authority. The State shall qualify by action of its legislature, agreeing —

"1. To accept provisions of the Act and to provide for administration.

"2. That State Treasurer shall receive the funds and report to the Congress through the U. S. Commissioner of Education the amount received and its disbursement.

"3. That State Educational authority shall represent the State in the administration of funds received.

"4. To provide for an audit by the State educational authority of expenditures of funds re-

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ceived and apportioned to local jurisdiction and for a system of reports to such authority.

"5. That the State educational authority shall make reports to the Commissioner which he shall convey to the Congress with recommendations for such revisions of the Act as in his judgment the Congress should consider.

"6. That there shall be no racial discrimination in the expenditure of the funds.

"Under these conditions the state control is not impaired and there is very little opportunity to create such an enormous federal bureaucracy as we dreaded from the Wagner bill. This bill may prove to become a model for other bills providing subsidies. It is modeled after the Plan of Land Grants to Colleges enacted after the Civil War."

THE MEDICAL BENEVOLENCE FUND

In accordance with a recent action of the Council of the Illinois State Medical Society, every member will receive during the months of February and March, a letter telling of the efforts to develop a permanent endowment to maintain the work of the Committee on Medical Benevolence and pay regular stipends to disabled members of the Society, widows or widowers of former members, or their dependent children. It is the desire of the Committee as approved by the Council, to develop a fund so that all benefits may be paid from the income rather than from the fund itself, thus making it a perpetuating plan.

This was the dream for many years of the late Dr. John S. Nagel who began more than twenty years ago to create a sufficient amount of interest within the Society to make this possible. At this urgent request some seven years ago, the House of Delegates approved changes in the Constitution and By-Laws to establish a Committee on Medical Benevolence and recommended that the Council appropriate a sufficient sum of money to put the plan in operation immediately, which was done a few months later.

Some interesting conditions were met within a short period of time. Some former members with large incomes died suddenly or became disabled, and it was learned that their families were unable to care for themselves through the

loss of the wage earner. The small monthly checks sent regularly by the Committee on Medical Benevolence were greatly appreciated and did help materially to keep the family intact. A few members developed a serious ailment which kept them away from their professional work over a period of months or for two or more years, and the assistance from this committee was greatly appreciated until their rehabilitation was completely established.

Several elderly physicians no longer able to practice, received similar aid and they too have been grateful indeed. Fortunately under the plan of operation, only the three members of the Committee on Medical Benevolence know who the beneficiaries are, as the names are not published or reported even to the Council. The funds and transactions of the committee are subject to the annual audit, and to date, not one cent of the Benevolence Fund has been spent for anything other than direct aid to beneficiaries.

The letter sent out in February and March is as follows:

TO: MEMBERS, ILLINOIS STATE MEDICAL SOCIETY

RE: The Benevolence Fund

My dear Doctor:

You will recall the efforts of the late Dr. John S. Nagel over a period of many years to get approval from our House of Delegates to establish a Medical benevolence Fund to make available monthly checks for needy members, widows, widowers, or dependent children of former members when actual need was established. Some seven years ago this was approved by the House of Delegates and the By-Laws were amended to make the plan possible. Doctor Nagel was elected the first chairman of the Committee on Medical Benevolence, retaining this position until his death. It was his hope that eventually a fund could be established within the Society so that the principal would not need to be used, and the income would pay all benefits. At this time there is a maximum grant of \$30.00 per month to the beneficiaries, and the considerable amount of money has been appropriated by the Society to make the payments possible. Some financial aid has been received from the Woman's Auxiliary, but all other funds used have come from the general funds of the Society.

The Council recently approved a resolution presented which will give the membership as a whole the opportunity to build up this fund through two sources, both entirely voluntary.

1. This letter is being sent to all members together with a self addressed postage paid envelope and a form to be filled out showing your interest in this proposal

and listing your subscription to this fund. A contribution of any amount will be greatly appreciated.

2. Some members have frequently expressed a desire to make a bequest in their wills to the Benevolence Fund, and there is no time like the present to add such a codicil. Likewise, several outside the medical profession have expressed a willingness to donate money to this fund, and it is quite probable that many physicians can bring this matter to the attention of patients desirous of naming this Fund as a beneficiary.

This seems to be the logical time to start building up our permanent endowment, and your support to this worthy project will be greatly appreciated. After all, adversity can come to any of us, and we do not want our members or our beneficiaries dependent upon charity.

Cordially yours,

ROBERT S. BERGHOFF, M.D.
President

OSCAR HAWKINSON, M.D., Chairman
Medical Benevolence Committee

With the present day high cost of living no one knows when adversity may come to themselves or to the members of their families. No physician is desirous of depending on charity if it is possible to avoid it. The benevolence work is quite similar to life insurance, as the premium is included with the regular dues paid the county and state medical society. The member, in time of need, is legally entitled to the benefits. On the other hand, when the benevolence fund grows to such an extent that the principal will not need to be disturbed, and the income will care for all beneficiaries, it automatically becomes a permanent endowment, and that is the ultimate aim of the Committee as well as the Council, in authorizing this drive for funds.

Quite a number of members have given assurance that they will add a codicil to their wills whereby a certain sum is to be donated from their estates to the Medical Benevolence Fund. Others have reported that friends outside the medical profession would like to make similar donations, perhaps in the memory of some family physician who meant very much to them.

With the letter mailed out there was sent to each member a form to be filled out and a self addressed postage paid envelope in which the contribution could be sent. These lists of donors and the specific amounts contributed will not be publicized, and merely the amounts received and the total in the Benevolence Fund will be publicized from time to time in the annual report of the Committee to the House of Delegates.

It is hoped that every member of the Illinois State Medical Society will make a donation as early as possible so that a good report may be made at the 1947 annual meeting of the House of Delegates.

THE ILLINOIS CANCER BULLETIN

The Cancer Committee of the Illinois State Medical Society is highly gratified with the interest shown by the physicians of Illinois and elsewhere in the Illinois Cancer Bulletin. The Committee wishes now to clarify its present position and announce its future policy with regard to the Bulletin.

It was announced in the Bulletin Supplement, dated October 10, 1946, that a continuation of the Bulletin in abbreviated form was contemplated. Because of certain developments, however, the plan has not been immediately followed; nothing has been published since Oct. 10, 1946. This information is given because there have been so many inquiries from physicians as to why they have seemingly been dropped from the mailing list.

The reason for the change in plans came about because The American Cancer Society, New York, became so interested in the success of the publication that it wished to take over the publication for nationwide distribution. This was agreed to by your Committee after several conferences with representatives of The American Cancer Society, but that society finally formulated its plans along different lines. The preparation and groundwork for the American Cancer Society's project will require some little time and its initiation has been deferred until late in 1947. Hence, it has been decided that publication of The Illinois Cancer Bulletin should be resumed as originally planned, for at least one more volume of twelve numbers. Preparations are already under way, and the first number will be out soon.

With the last issue of Volume I a postcard was included for readers to indicate if they wished to be retained on the mailing list. The result was an avalanche of returned cards. The response showed so much interest that it was determined to continue using the full mailing list as before.

It should be of interest to the members of the Illinois State Medical Society to know that

twelve other states have asked to participate in the work we are carrying on and have ordered Bulletins for distribution to the physicians in their states. These are now being supplied to them, at cost, substituting their individual state mastheads for that of Illinois. Other states, and even a South American nation, are negotiating toward the same end.

Apparently the pioneer work of The Illinois Medical Society is bearing fruit in much greater abundance than was anticipated when it was undertaken.

DEATHS OF PHYSICIANS IN ILLINOIS

The average age at death of Illinois physicians in 1946 was 66.4, according to an analysis of the obituaries of 253 Illinois physicians published in The Journal of the American Medical Association.

Heart disease led the causes of death in Illinois, following the pattern established in the overall study of the obituaries of 3,358 physicians

In this brief analysis, the various causes have been classified individually, since multiple factors were ascribed to many of these deaths.

Of the twelve accidents in the civilian group, four died in automobile accidents, three from falls, one in the Hotel La Salle fire and one from an overdose of benzedrine. Three deaths were attributed to fractures, one of the right femur and humerus and two of the hip.

There were five suicides, one of monoxide gas poisoning, one of an overdose of sleeping pills, one of a bullet wound, one of barbiturate poisoning and one for which no method was given.

Of the twelve physicians who died in the service of their country, seven were killed in action and five died while in military service. In the killed in action group, three were members of the Army of the United States and four of the Navy. In the Army, one died in the crash of a B-29 bomber, one of battle wounds and one was just listed as killed in action. In the Navy, two were listed as killed in action, one was hit by a

DEATHS BY AGE GROUPS

25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94
2	8	9	7	10	6	27	27	35	40	42	22	14	4

made by The Journal of the American Medical Association in its issue of January 11. In Illinois, fifty-five deaths were charged to coronary thrombosis or occlusion. Myocarditis accounted for sixteen deaths and other diseases of the heart, thirty-one. Cerebral hemorrhage and thrombosis were responsible for thirty deaths and various forms of carcinoma for twenty-three. Arteriosclerosis figured in twenty-one deaths and numerically in order appear the following: Pneumonia thirteen, of which one was virus pneumonia; uremia and nephritis, eleven; diabetes, ten; cardiovascular renal disease and malignant hypertension, eight; hypertension and tuberculosis, three each; Parkinson's disease, diseases of the gallbladder, diseases of the respiratory system, asthma and leukemia, two each. One death each was charged to pernicious anemia, tuberculous meningitis, arthritis, cirrhosis of the liver, influenza, cholecystitis, disease of the spinal cord, poliomyelitis and other thrombosis and embolism. One cause was entered as "ill-defined" and one as senility.

Japanese suicide bomber and one was first reported missing in action and later officially declared dead. Of the five deaths reported while in military service, four were in army service and one in the Navy. In the Army, one died in an automobile accident, one in an airplane accident, one of hepatitis and one of carcinoma. The Navy physician died of extreme multiple injuries received in an automobile accident.

Of the military group two died between the ages of 25 and 29, four between 30-34, four between 35-39, one between 40-44 and one between 55-59.

CANCER SYMPOSIUM FOR ILLINOIS PHYSICIANS

A five day symposium on cancer with special emphasis on early diagnosis was conducted by the Illinois Division of the American Cancer Society in Chicago on January 20 to 24. The Executive Director of the Illinois Division, Dr. John A. Rogers, and Dr. Warren H. Cole, the

chairman of the Illinois State Medical Society Committee on Cancer came before the Council at a recent meeting asking the cooperation of the state society as well as its approval for the presentation of this unusual symposium.

Following the approval of the Council, letters were sent to all county medical societies asking them to recommend physicians in their respective sections of the state who would be interested in taking this course. Many applications were received, and the first 35 were selected to take this course with the understanding that if the venture were approved and the physicians thought it desirable, additional courses would be arranged for other groups of physicians.

Warren H. Cole was chairman of the Committee on Arrangements from the University of Illinois College of Medicine; Alexander Brunschwig from the University of Chicago; Walter G. Maddock from Northwestern University and Herbert E. Schmitz from Loyola University were the other members of the Committee. Sessions were held at each of these University Medical Schools on the first four days, and on the fifth day the group went to Michael Reese Hospital where an unusually fine program was arranged. Special dinner meetings were held which added materially to the interest on the part of the participating physicians.

The major portion of the expenses of those attending the symposium was borne by the American Cancer Society. If a sufficient number of applications are received from physicians in the downstate area, the course will be repeated, and plans are under way for a similar symposium for Cook County physicians in the near future. Cancer as the greatest killer among diseases, can be reasonably well controlled if the available information on early diagnosis and early treatment is utilized to the best advantage.

In view of the fact that there were 12,651 cancer deaths in Illinois in 1945 and to a considerable extent with the proper use of available information on the early diagnosis and treatment of this disease, it is hoped that many Illinois physicians will take advantage of this unusual opportunity to attend future conferences or symposia which will be arranged if there is a definite demand for them.

Guest Editorial

THE NEXT STEP FOR BENEFIT OF THE PUBLIC HEALTH

HARRY S. MUSTARD, M.D.

Director, School of Public Health, Columbia University
NEW YORK CITY

There has probably been no period in the world's history when the accumulation of scientific knowledge was as great as it is today. It seems equally safe to assert that, so far as concerns ability to apply this knowledge for the benefit of the public health, no nation is or has been in as favorable position as the United States.

Newer knowledge for the prevention of diseases and improvement of health, as well as knowledge long held, is almost staggering in its implications. As each year passes, it becomes possible to see more clearly how, as a practical matter, illness or death from this disease or that may be made an unusual event in the community. New vaccines, and the broadening field of immunology, chemotherapy, antibiotics, specifics in the prevention and control of nutritional diseases, the possibilities of chemical synthesis, clarifications as to etiology and pathology of many of the chronic diseases, productive fundamental research — all these advances present new pages and fresh promises of a healthier and longer life for man as an individual and in the mass.

Many of the benefits of this newer knowledge will be brought to the people through the practicing physician in his private and hospital capacity. But not all of the knowledge available can be applied by physicians serving individually and, today's information as to what to do is to a considerable extent dammed up, and the people remain in want of it because in many parts of the United States and in many communities in the various states, there is no full-time public health department of trained workers to translate knowledge into action.

The American Public Health Association, as a result of a nation-wide study in this connection, came to the conclusion that one of the most urgent necessities for the benefit of the public is for each and all of the several states, within the framework of their respective laws and pol-

icies, to provide full-time local health organizations on a city, county, or district basis. Inherent in this recommendation is the proposal that the state should aid these local organizations financially on an equalization basis, but that each local jurisdiction should subscribe funds in proportion to its wealth or lack of it. There are also certain other qualifications that relate to such joint local-state undertakings. One is that through direct participation or representation, local autonomy be maintained and, another, that appointments to these local health departments be non-political, on the basis of merit, in accordance with pre-announced requirements as to education and experience, and that salaries be sufficient to attract competent physicians, nurses, and other professional public health workers.

But the American Public Health Association is not the only national agency that has expressed itself in this connection. A resolution similar in import was adopted by the State and Provincial Health Authorities of North America in 1944, and on June 10, 1942 (antedating by some months the action of the American Public Health Association), the House of Delegates of the American Medical Association took action as expressed in the following resolution:

"That the Trustees of the American Medical Association be urged to use all appropriate resources and influences of the Association to the end that at the earliest possible date complete coverage of the nation's area and population by local, county, district or regional full time modern health services be achieved."

It will thus be seen that, so far as concerns professional organizations, there is wide agreement that for full release and application of public health knowledge to the people, a mechanism must be supplied that will carry public health service to every person in every community in each state of the nation. State health officers are also convinced of this, and the intelligent lay public is awakening.

In these circumstances, one might well ask why the plan is not put completely into operation; why knowledge that is health saving and life saving is blocked up in its flow to the people. The answer, though complex and varying from place to place is not difficult to discover. The resistance is mainly inertia on the part of those who hold the state and local purse strings. Strengthening this passive opposition to some extent, in

one place or another, is a certain amount of individual resistance: fear of loss of local autonomy, fear of the loss of a job, apprehension of legislators and local officials as to costs.

But most of these things are being overcome. Representatives of the people are beginning to learn that none of their colleagues is ever subjected to criticism because of appropriations for public health purposes, but that, on the contrary, a record of affirmative action in this connection becomes something to which a candidate more and more points with pride. As to local autonomy, a community that has its own full-time health department soon comes to realize that there is far less remote control than when they had no trained workers of their own, and decisions relating to their local affairs had to be made by the state department of health.

It must be confessed that the coming of full-time health officers tends to displace those who previously acted in the same capacity on a part-time basis. Nevertheless, in most places the total number of part-time physicians employed in clinical capacities by the full-time health department usually exceeds the number previously as health officers. Thus, although the change of system might entail hardships in individual instances, the total participation of the medical profession is likely to be greater rather than less than before.

As a whole then, the problem is comparable to many other seen in human affairs wherein there is, on the one hand, a great storage of valuable goods, and on the other hand, an acute and permanent consumer need, but with transportation and communication systems more fitted to the eighteenth century than to the demands and opportunities of the twentieth. Unfortunately, insofar as concerns community health, the consuming public and its representatives and officials in many places, is not only uninformed as to the potential value of this dammed up knowledge, but is also quite unconscious of the need for establishing local health departments as a means for the translation of information into action.

But this public will listen to its doctors; and herein is to be found the medical profession's opportunity for a public service of inestimable value, and in keeping with its announced policies and its traditions.

ILLINOIS IN THE ROCKIES

A notice has been received in the office of the secretary of the state society relative to the opening of a new medical center — The Colorado Springs Medical Center, at Colorado Springs, Colorado. It is indeed interesting to note the personnel of this group and its background.

Dr. Robert O. Beadles, the urologist, is a graduate of the Northwestern Medical School; Dr. John E. Karabin, the surgeon, graduated at Northwestern Medical School, and took his post graduate work at Northwestern and at the University of Illinois Medical School. Dr. R. Keith Kerr, obstetrician and gynecologist, graduated at Northwestern and had his post-graduate training at Evanston Hospital, Evanston. Dr. Robert H. Smith, internist, graduated at Northwestern. Dr. J. Harvey Johnston, internist and allergist, is also a Northwestern man; Dr. James W. Lewis, radiologist, had his post-graduate work at Evanston Hospital and Dr. W. K. Kuhlman, ophthalmologist, had his post-graduate courses at Northwestern.

Chicago, undoubtedly, is one of the large medical centers of this country, and our teaching, our principles and our "products" are scattering far across this nation. It is definitely our responsibility to maintain the high standards in medical education essential to the health and welfare of our people, and to realize the far flung effects that our schools have upon the well being of our population.

WAR DEPARTMENT'S RESEARCH PLANS TOLD

A National Science Foundation to correlate and expedite federal scientific research was advocated by Maj. Gen. H. S. Aurand in a speech before the Union League Club at Chicago, Feb. 4, coupled with the warning that important research has lagged since V-J Day.

"We are in the interim period between a long and militarily successful war, and what we fervently hope will be a lasting peace," said General Aurand, Director of the Research and Development Division of the War Department General Staff. "As we emerge from war, there seems to be a tendency to look to the military to continue to decide and to act as they did in war. On the other hand, the military are most anxious to return to civilian direction."

Commenting on the part science played in the recent war, General Aurand pointed out:

"In the research and development program, the role of the scientist has been phenomenal. Such things as 'radar,' 'proximity fuse,' and 'atomic energy' are today household words. All of these were brought to the battle-field by scientists during the progress of World War II Time after time, when the chips were down, the scientists came through with the answers. That the War Department could fail to recognize the necessity for a greatly increased research and development program after World War II is unthinkable."

Since conclusion of the war, however, research has lagged, he emphasized. The federal scientific agencies with which the Army had dealt — the Office of Scientific Research and the National Defense Research Council — have been winding up their activities.

To meet the emergency, General Aurand proposed establishment of a National Science Foundation "at as early a date as possible."

"The performance of this task of collaboration between science and the military is not the only reason why the War Department wants the National Science Foundation," he asserted.

"There should be a clearing house for federal research contracts, in order that the War Department, which is just one of many federal agencies with a research and development program, may know whether work is already being undertaken elsewhere in a field which it desires to explore. It needs to know the best place to go for its pure research work, as well as the best qualified people to do the job it has in mind. And finally, there has to be some sort of mobilization plan for science, not only in the event of an emergency, but to carry on the necessary research work in peacetime A National Science Foundation could do all these things with propriety."

Among the fields in which the Army is carrying on and planning extensive research are aviation, ordnance, communications, engineering, supply, chemistry, medicine, and transportation.

Emphasizing the extent of civilian participation, which he said "might also be called civilian domination," General Aurand pointed out that restrictions on contracts for research are entirely

(Continued on page 146)

Correspondence

U. OF I. MEDICAL ALUMNI LUNCHEON MAY 13

The Medical Alumni Association of the University of Illinois College of Medicine will hold an annual luncheon at the Palmer House on Tuesday, May 13th at 12:00 noon. President Stoddard, Doctor Ivy and Doctor Youmans will be guests. The cost per plate will be \$3.50, and reservations are to be made with Dr. Michael H. Striecher, Secretary, 1853 West Polk Street, Chicago.

IOWA-ILLINOIS MEETING

The regular quarterly meeting of the Iowa and Illinois Central District Medical Association will be held Thursday March 20, 1947, in the Fort Armstrong Hotel in Rock Island, Illinois.

Dinner will be served at 6:30 P.M. in the ball room to be followed by the scientific program at 8:00 P.M.

Zackary J. Romeo, M.D. of Rock Island, Illinois, will give a short talk on "The Use of Pituitary Extracts During Labor".

The guests speaker of the evening will be Russell L. Haden of the Cleveland Clinic, Cleveland, Ohio, who will speak on "Rheumatoid Arthritis".

All physicians who are interested are invited to attend.

NAVAL AIR RESERVE TRAINING

The U. S. Naval Air Station, Glenview, Illinois, is now engaged in Naval Air Reserve training. Personnel operating the station are mainly officers and men discharged at the end of hostilities, having returned to active duty at their own request.

At this time there are two openings for Naval Reserve medical officers for active duty. The senior medical officer should be a flight surgeon.

There is also opportunity for a number of Naval Reserve flight surgeons and the other medical officers to join the Organized Reserve training program. This involves participating in four training periods per month, which can be done on one weekend, and an annual two weeks' training cruise.

Further information about these opportunities may be obtained from the Senior Medical Officer, U. S. Naval Air Station, Glenview, Illinois.

PHYSICIANS IN CIVILIAN PRACTICE DURING WAR URGED TO REPLY ON NEW QUESTIONNAIRE

Parallel with the advance of scientific warfare there has been a rapid advance in scientific medicine in the Twentieth Century. The huge strides made in our ability to destroy life and health in the recent war, however, have left many problems which remain to be solved. One of the most critical problems, as recognized by the House of Delegates of the American Medical Association in its December meeting, is that of providing care for the civilian population in the event of another national emergency.

The medical profession is wisely assuming its obligation to the American people to be prepared with facts and recommendations for any such future emergency. As a first step in this preparation, 5,000 questionnaires have gone out to a list of physicians, selected at random, who passed the recent war years in civilian practice.

On the basis of the answers to these questionnaires, sent out by the Committee on National

Emergency Service of the A.M.A., it is hoped that facts may be determined as to how the civilian population was served in World War II. The questionnaires also provide an opportunity for those who were responsible for civilian care in those years, to indicate what changes should be made in the mobilization of medical service in future emergencies.

Five thousand questionnaires represents a very small percentage of the total number of physicians who remained in civilian practice. Dr. Edward L. Bortz, Philadelphia, chairman of the Committee on National Emergency Service, has appealed to every physician receiving the civilian questionnaire to respond promptly. The accuracy of the facts obtained and the soundness of the conclusions made by the study will be determined to a great degree by the cooperation which those receiving the questionnaire give the committee.

The committee received excellent cooperation from the 50,616 former medical officers who were mailed questionnaires last December on their experience in military service. These are now being analyzed and studied. The facts obtained will be used as a basis for recommendations to be made by the Committee in June to the House of Delegates.

With the cooperation of the 5,000 physicians who are now receiving questionnaires on their civilian experience, the committee will be able to complete the total study of how the medical profession can best serve our population, civilian and military, in the event of a future national emergency.

Every physician receiving one of these questionnaires has a professional and humanitarian duty to perform in completing it and returning it promptly. It is preferred that each sign his name, but if anyone wishes to remain anonymous, he may do so. The important thing is to get as broad a representation of facts, experiences, and opinions as possible.

AMERICAN SOCIETY FOR THE STUDY OF STERILITY

The third annual convention of the American Society for the Study of Sterility will be held at the Hotel Strand, Atlantic City, New Jersey, on June 7-8, 1947. The general theme of the meetings will be that of attempting to disseminate to the physician treating marital infertility an overall picture of the latest advances in reproduction. The convention will include original papers, round table discussions, scientific exhibits and personal demonstrations. In essence, this will be a valuable post-graduate course in the subject of sterility and infertility. Registration for the sessions is open to members of the medical and allied professions. Additional information may be obtained from the secretary, Dr. John O. Haman, 490 Post Street, San Francisco, California.

MEDICAL EXAMINERS

LUNCHEON MAY 13

There will be a luncheon for the diplomates of the National Board of Medical Examiners on Tuesday, May 13 at 12:30 at the Palmer House. All those wishing to attend this luncheon should communicate with Dr. W. O. Thompson, 700 N. Michigan Avenue, Chicago. There are several important matters to discuss and it is hoped that as many diplomates as possible will attend.

FREE PLACEMENT SERVICE FOR PHYSICAL THERAPISTS

The Illinois Chapter of the American Physiotherapy Association offers a Vocational Placement Service to facilitate the placing of qualified physical therapists in the Illinois area. Anyone desirous of securing the services of a physical therapist, either full or part time, may contact Miss Dorothy Wagner, 560 Aldine, Chicago, Illinois.



Original Articles

REMARKS ABOUT THE APPLICATION OF THE BETATRON IN CANCER THERAPY

HENRY QUASTLER, M.D.

URBANA

The betatron^{2, 3} is a result of modern developments in physics, and it will, in turn, lead to additional new developments. One aspect of these anticipated developments shall be discussed here, viz., the possibilities of using the betatron, in a certain way, in cancer therapy. The final appraisal, of course, will come only after sufficient experience has been gathered in actual clinical work, and, as far as is known, the betatron has not yet been used on any patient. But, in preparation of medical work, a certain amount of experimenting and theorizing has been done at Urbana, by a group of workers representing physics, biology, and medicine. As a result, we feel that we can forecast, with some accuracy, the achievements to be expected from the clinical use of the betatron.

The invention, and a good deal of the development, of the present betatron was the work of D. W. Kerst and his associates, at the University of Illinois. The betatron is a machine to accelerate electrons by magnetic induction. The electrons are injected into a ring-shaped vacuum tube called the "doughnut". They are sped up along a circular orbit. At each turn, they gather additional momentum. As they move almost as fast as light they can be made to perform very many turns, and accumulate a very high energy,

within a small fraction of a second. As soon as the electrons have reached a predetermined level of energy, they are released from their circular orbit by a change of the field. At this moment, they could be brought out of the doughnut as very energetic beta rays; or, as in the present machines, they are hurled against a metallic target, where they produce a burst of roentgen rays. The machine we used in our experiments produced roentgen rays of a peak energy of twenty million-electron-volt, at rates of around 50 r/min. at a meter.

Thus, it has become possible to use roentgen rays of many million volt energy. Such rays have a number of important properties, but the one which interests us most, at the moment, is their power of penetration. If we examine a depth dose curve obtained with the rays of the betatron⁴ we see, first, that the tissue dose increases for three to four cm. below the surface. This is due to the fact that the secondary electrons produced travel far, and almost exclusively in the direction of the beam. Less startling but more important is the second feature that, once the peak dose is reached, the tissue dose falls off very slowly. Calculation shows that what decrease there is is due to distance rather than to absorption. We can arrange the beam in a way that there will be approximately the same dose throughout the region passed, from entrance to exit portal. Thus, if we arrange two beams so that they coincide only in the tumor area, no region outside the tumor area will receive more than one-half the tumor dose; with three beams, the factor will be reduced to one-third, etc. It is obvious that, this way, we can administer a

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predetermined dose to a tumor area anywhere in the human body, without giving damaging doses to any tissue outside the tumor area, and without having to use high volume doses.

On the basis of these considerations it is clear that the betatron implies a definite promise for the radiation therapist and his patient. However, several questions must be settled before therapy can be started in a rational way. The first problem is this: what reaction will occur in an isolated small volume of tissue, situated in the beam, independently from the dosage distribution throughout the body as a whole? Biophysical considerations (which will be given in detail elsewhere) led us to two tentative statements: (i) qualitatively, the biological and clinical reactions will be the same as those attending the use of conventional roentgen rays, and (ii) quantitatively, they will be about the same as those following administration of an identical dose of gamma-rays. These two theses, of course, apply only to a small element of tissue, not to the patient as a whole. For experimental tests, we substituted, for the body, a presswood, phantom of appropriate dimensions, and for the small element of tissue, a small living object (mice and bean seedlings, in the experiments done thus far) inserted at a selected place in the phantom. The results of these experiments will be discussed elsewhere in detail^{5,6}, in this context. I want to report only the general results: a good number of reactions were investigated qualitatively, by my associates and myself, and the changes observed were comparable, in every respect, with those found after treatment with 200k.v. rays; quantitatively, only a few tests have been done, and the factors found have been about the same as occur in the comparison of conventional roentgen rays and Radium-gamma-rays. The results of this work — though it is admittedly rather limited in scope — make us feel quite certain that no startling surprise in the way of tissue reactions will attend the clinical use of the betatron.

The situation seems to promise clinical application of the betatron in the near future: the technical development of the instrument has produced reliable and easy-to-run machines; the danger of unexpected tissue reactions has been largely eliminated; and the next steps to be taken are well perceivable. The first is the construc-

tion of a good limiting diaphragm or cone. The beam as it comes out of the doughnut shows an energy gradually decreasing from the center to the periphery in a Gaussian curve. Such a beam, of course, cannot be used clinically. The limiting will not be quite easy; it takes a considerable thickness of lead to reduce the primary radiation substantially and the secondary electrons arising in this process are rather penetrating and cannot be stopped, as in present cones, by a thin layer of bakelite. Once a good diaphragm is constructed, it will be necessary to take a complete set of depth dose curves; the ones available at present are of a preliminary nature, and there is little sense in doing careful measurements at this time, because the depth doses obtained with the unlimited beam are not quite the same as the ones that will be found with a diaphragm. Once these questions are settled, plans of treatment can be set up; one will have to go back to the basic principles of radiotherapeutic techniques to develop his methods, as it will be distinctly not favorable to apply the betatron in the same manner as a 200-k.v.-beam. However, it will probably not take long before the betatron techniques are as well standardized as the 200-k.v.-techniques are now. Finally, there is the problem of protecting the operator⁷. This is not as hard as it might seem, because high-energy rays are mostly scattered in a forward direction, and the protection is not too difficult if the beam is kept unchanged, and pointing toward a safe spot.

The research program outlined above is very modest, especially if compared with the vast physical and engineering developments of the betatron which are still going on. The quantum energy of the rays produced is going up, and it will soon be possible to release the accelerated electrons directly out of the doughnut. Are we to expect any striking medical advantages from these developments? I doubt it. The electron beam has a very attractive depth dose distribution, but it has little flexibility and will be hard to adapt to the individual case. Roentgen rays of an energy surpassing 20 million volt might lead to a still more advantageous depth dose distribution along the central beam, but their absorption is attended by an increasing production of unfocussed secondary radiation which will tend to increase the volume dose, thus increasing

the severity of systemic reactions of the patient.

We can, now, visualize fairly clearly the future place of the betatron in cancer therapy. With a beam of 20 m.e.v., or thereabouts, it must be possible to deliver a predetermined dose to a tumor area anywhere in the body in a way that there won't be anywhere outside the tumor area a local dosage level of dangerous height, and that the total volume dose received can be kept within safe limits. Thus our success in delivering the desired tumor dose will depend only on our accuracy of locating the tumor area, and of aiming the beam. There should not be any cases where our therapeutic plan is frustrated either by local burns, outside the tumor area, or by systemic reactions. The greatest improvement, as far as number of cases is concerned, should occur in the group of pelvic malignancies. On the other hand, even the best topographical selectivity is of little help if the tumor area is very extensive, like in wide spread malignancy, and in cases where normal organs which have to be protected are situated within the tumor area. Thus, in pelvic cancers, rectum and bladder are and will remain factors limiting the size of the tumor dose. Concluding, it can be said that from what we know about the betatron at this time, it cannot be expected that there will be any radical change in the outlook of cancer patients; but, that some cases will be saved which cannot be saved with the conventional equipment, and that in many cases the severe side-effects attending radiation therapy will disappear.

SUMMARY

1. The betatron has not yet been used on patients, but some work has been done in preparation for medical application.

2. No spectacular clinical success is expected, but

3. Some definite progress in radiation therapy is expected from the improvement in topographical selectivity made possible by the betatron.

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DISCUSSION

Dr. R. T. Pettit, Ottawa: I had an opportunity about a year ago of seeing this betatron at the power house at Urbana. Dr. Kerst was away during the war but several physicists in his department were making measurements on the machine and Dr. Quastler was there doing some work on the biological aspects of the problem. I think this instrument is as astounding as the atomic bomb. It will confront us with a whole new set of conditions, and it is going to confront the people who have to deal with it with a whole new set of conditions. It is, in particular, going to mean revising our ideas of protection. They are now using about five feet of concrete around the machine to protect the people who are doing the measurements. These people who are taking these chances certainly deserve a great deal of credit and warrant our esteem. These are the chances taken in science. Look at the background of the early days of radiology, with x-ray burns and so on. Protection of operators will have to be given a great deal of thought. I want to congratulate Dr. Quastler on this very revolutionary work.

Question: Have you determined the thickness of lead that has to be used to stop rays of five, ten, or even sixty million volt energy?

Dr. Quastler: Up to two million volts, the penetration in lead increases as the energy goes up; but, beyond this energy, it decreases again. Therefore, as pointed out by Failla, if you are protected against two-million volts rays you are protected against everything, and a few inches of lead, or a few feet of concrete, will do. Besides, secondaries are not so much scattered in all directions, like with ordinary roentgen rays. The operator keeps pretty far away, behind a thick wall of concrete, is not in the path of the beam, and is — we hope — safe.

Question: What dosage and at what time does it kill a white mouse? How much chemical change do they get at high voltage?

Dr. Quastler: Roentgen rays of high energy do kill mice. I have worked mostly with black mice (strain C-57) and found that to kill a mouse you need a dose about 30% higher than with 200 kilovolt rays, both doses measured with the Victoreen thimble. The time between irradiation and death depends on the dose delivered; a mouse of 20 gms. will die about 10 days after administration of 600 r; between 600 and 1200 r, the survival time goes down to $3\frac{1}{3}$ days; from 1200 to 12,000 r it stays constant. With extreme doses, you can reduce the survival time to hours and minutes, but this is a different reaction, with diffuse and immediate cell destruction. We have not investigated chemical changes after irradiation; we do not expect any radiochemical phenomena specific to high energy rays except those which follow nuclear reactions. With very high energies you will find some induced radio-activity.

Question: I realize you have had limited experience with these rays, but certainly you have used different

types of radiation. Does the effect of high energy rays still depend on the number of roentgens used?

Dr. Quastler: Yes. The energy of a high energy photon is spent in many single steps, scattered widely throughout the tissue. At the beginning of the absorption process, an atom might emit a charged corpuscle of very high energy. This travels through the tissue, losing small amounts of energy from time to time. The values of these individual energy transfers depend not so much on the rays as on the material that absorbs them. Thus for every high energy transfer which is specific for the rays of the betatron you will have very many low energy transfers which occur just as well with ordinary rays. Therefore, the effects are basically the same, and are related to the number of ionizations, or roentgens.

Question: How does betatron therapy compare with cyclotron therapy?

Dr. Quastler: In cyclotron therapy the tissue is hit by heavy particles travelling at great speed. The ionizations produced are crowded very densely which can increase or decrease their effectiveness depending on what reaction you consider. The depth doses obtained with fast protons should resemble those of electrons which I mentioned before. The methods of dosage control are not yet too well developed.

Question: Are betatrons for medical work available?

Dr. Quastler: Betatrons are now produced by two manufacturers, and they are taking orders. The commercial model I know is designed for industrial purposes but it can be adapted for medical use. This will necessitate a certain amount of gadgeteering but I do not foresee any basic difficulties.

CONSERVATIVE RENAL SURGERY

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We know a great deal more about kidneys and their function today than we knew several years ago. With this increased knowledge, tremendous strides have been made in renal surgery. Renal surgery today is more simple, more exacting and more positive in its end results than was its counterpart of a few years past. Fewer kidneys are being needlessly removed. Fewer exploratory operations upon the kidney are now necessary. The trend of thought today is, "How can I save this kidney?" rather than "How can I remove it?". It requires a great deal more knowledge and patience and experience to save a kidney than to remove

one. We are sometimes inclined to avoid a conservative operation upon the kidney because we are afraid of a postoperative failure necessitating a second operation. These failures occur and must be admitted. In some instances, the morbidity is also greatly increased. In spite of failures and in contrast with them, a surgeon will be rewarded by many satisfactory postoperative results when a conservative operation upon the kidney has been performed.

We should always have in mind the conservation of renal tissues, but this is particularly important when we are operating upon children or young adults. In this group regeneration of kidney tissue is much more certain than in the aged. Re-operation in the young should be avoided, but it is less serious than in the aged group. In the aged group one operation, if possible, should cure the patient.

LESIONS USUALLY TREATED BY NEPHRECTOMY

Renal tuberculosis or kidney tumors, according to our present understanding, do not lend themselves to conservative surgery and the removal of the entire kidney is necessary. In the case of a functionless destroyed kidney or one for which the blood supply is defective and surgery is indicated, removal is mandatory. Severe trauma or rupture of the kidney may necessitate nephrectomy, especially when the pedicle is injured. Advanced unilateral cystic disease of the kidney when producing symptoms usually does not lend itself to conservative correction. Occasionally a polycystic kidney needs to be removed for persistent hemorrhage or malignancy. Unilateral kidney dysfunction resulting in hypertension should be treated by nephrectomy providing the remaining kidney is normal.

LESIONS FOR WHICH CONSERVATIVE SURGERY IS RECOMMENDED

1. *Hydronephrosis with uretero-pelvic obstruction.* Many of these lesions are found in children and young adults. Even though the lesion is far advanced, reconstruction of the renal outlet with or without pelvic resection may save the kidney. The prognosis is much better in the uninfected cases. The lesions are frequently bilateral with both kidneys partially obstructed, one as a rule more than the other. Even though the opposite pyelogram is normal, we have no assurance in this congenital group that a similar incipient uretero-pelvic stricture or lower pole

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aberrant vessel or a periureteral adhesion is not already present. If so, it will probably cause serious trouble in years to come.

It should be noted here that following reconstruction or plastic operation upon a well advanced hydronephrosis, the collecting portion of the kidney rarely returns to a condition such as to permit one to obtain a normal pyelogram. Even with adequate postoperative urinary drainage, a certain amount of pyelectasis will persist. The function of such a kidney, however, will continue to improve for years, particularly in a child or a young adult. As stated before, in the aged patient with a normal opposite kidney, conservative renal surgery should be discouraged. With a well advanced hydronephrosis, a nephrectomy is more often the operation of choice.

2. *Renal Calculi.* We are still removing too many kidneys for renal calculi. Here again the lesion may occur in both kidneys, necessitating extreme conservation in keeping with good surgical judgment. Too frequently we do not find the calculi in the kidney at the operating table and the kidney is removed. At other times, calculi are left behind, making a subsequent operation imperative.

Every patient who is to be operated upon for a urinary calculus should have a preliminary scout film made immediately before going to surgery. This film may greatly simplify the operation and make it possible for the surgeon to avoid excessive surgical trauma and embarrassment at the operating table. After the kidney has been mobilized it is very simple to take a film of the exposed kidney with a portable x-ray unit. A 4 x 6 film wrapped in black paper and placed in a sterile rubber envelope will reveal many cases of residual calculi. With this technique the incidence of recurrent renal calculi can be greatly reduced.

Stones locked in the minor calices by a tight infundibulum are removed with extreme difficulty and with excessive trauma through the renal pelvis. They can be removed more easily by a nephrotomy incision. However, they have a tendency to recur. In such an operation we leave a dilated calyx and a poorly draining infundibulum behind, a perfect anlage for a recurrent stone. In these cases the conservative operation consists of resecting a small portion of the lower or upper pole so as to include the di-

lated calyx and the stone or stones, as the case may be. Even though a kidney is filled with stones, considerable parenchyma may still be present. Hemorrhage following extensive renal incisions is better controlled now by careful deep sutures and ribbon gut pressure. The newer products, fibrofoam, gelatin-foam or oxidized gauze will greatly aid us in the management of these cases in the future.

3. *Anomalous kidneys.* In duplication of the ureter and pelvis, where one pole is diseased and destroyed, every effort should be made to save the uninvolved portion of the kidney when the blood supply permits. It is difficult to say if and when the patient may be in dire need of this small kidney remnant to help sustain life. The operation can be unusually difficult, due to a longstanding infection. It is surprising how many of these duplications can be successfully treated by heminephrectomy.

4. *Solitary Cysts.* Unipolar solitary cysts can usually be resected without removing the entire kidney. Cysts occurring in the central portion of the kidney may also be resected. More frequently, however, a nephrectomy is advisable after the kidney is carefully examined at the time of operation. The remaining blood supply may preclude local excision.

5. *Nephroptosis and Nephralgia.* A greater mistake cannot be made in surgery than to perform a nephropexy upon a patient for a mistaken diagnosis. These patients are always worse after the surgery and they may become permanent invalids. A simple movable kidney remains symptomless. On the other hand, in many instances a painful kidney may be successfully treated surgically, providing the pain is renal in origin. In these cases there is, in addition to the ptosis, an obstruction of the upper ureter or there is sufficient rotation to cause passive hyperemia of the kidney. This passive congestion may produce an extremely sensitive and painful condition of the kidney without urinary obstruction or urinary retention. Nephropexies should be performed without decapsulation. Renal sympathectomy at the time of the nephropexy will result in a much less painful post-operative convalescence.

6. *Single kidneys.* Occasionally we see a single kidney where surgery is indicated. The same surgical lesions found in patients with two kidneys may occur in a patient with a single

kidney. Needless to say, under these circumstances we should be most cautious and careful in our recommendations. The attitude of the patient in this group is extremely important. If a patient is not anxious to have an operation performed upon the single kidney, it would be wise to wait. As a rule, barring accidents, if the patient is anxious to have the operation and the surgery is reasonably well carried out, the outlook is quite good.

The handling of a kidney during an operation will cause a certain amount of trauma and post-operative swelling. The swelling may produce sufficient pressure on the renal parenchyma to cause anuria. An incision of the renal capsule from pole to pole on the convex lateral border will allow for post-operative swelling to take place. In the high-lying kidney, the removal of the twelfth rib will greatly facilitate renal exposure and thereby minimize the operative trauma. Tumors involving single kidneys should, of course, be resected as early as possible. A plastic operation upon the renal pelvis and ureter in a single kidney is always a serious undertaking. With minimal surgical trauma the convalescence may be entirely satisfactory.

7. *Two-stage Nephrectomy.* A discussion of conservative renal surgery is not complete without a consideration of the two-stage kidney operation. The two-stage operation has saved many a patient's life. It may be employed in large renal tumors, in perinephric abscesses, and in severe pyonephroses. There is considerable shock in connection with the removal of a kidney. Hemorrhage at the time of operation may be extensive. There can be no reflection upon a surgeon who resorts to a two-stage kidney operation or to a two-stage nephrectomy in order to safeguard a patient's life.

A careful history and physical examination of every patient with a condition of the kidney, for which surgery is contemplated, is essential. Intravenous or retrograde pyelograms or both should be made before operation. Urography should include routine prone and upright films. Sometimes a lateral or semi-lateral exposure is very helpful. A preoperative chest film may reveal additional lesions but a normal film can

be helpful when post-operative complications develop.

The use of sulfonamides, penicillin and streptomycin minimize the hazards when operating upon infected urinary organs, including the kidney. Pre- and post-operative administration of the proper chemotherapeutic agent permits the performance of conservative operations upon the kidney which were impossible only a few years ago. In a few instances of localized renal or perirenal suppuration chemotherapy may cause resolution without surgical drainage.

SUMMARY

The trend in renal surgery today is definitely conservative. Many ailing kidneys routinely removed in the past are now being restored to satisfactory function. Detailed pre-operative studies, better x-ray films, and the proper use of chemotherapy are primarily responsible for the marked improvement in present day renal surgery. In addition, the young surgeon of today is infinitely better trained to perform reconstructive surgery than was his predecessor.

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THE RELATION OF THE NEAR POINT CONVERGENCE TO SQUINT SURGERY

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The N.P.C. measures the convergence faculty, that is the ability of the eyes to turn in simultaneously. By itself, the near point will indicate one of two things: an overstimulated convergence center or an underactive convergence center. With the screen test in the distance and at near, it shows the differential diagnosis between a divergence and convergence anomaly. Therefore, the near point with just the measurements taken at six meters and 25 cm. will give the center anomaly at hand. It is most valuable when the deviation is the same both at infinity and at near for in this case it establishes the diagnosis.

Before proceeding any further, perhaps it

would be a good idea to review what is included in a proper muscle examination.

1. Accurate squint history
2. Static visual acuity
 - a. Without glasses
 - b. With glasses
 - c. With pin hole in case of poor vision
3. Static refraction
4. Muscle balance
 - a. Screen test
 - at 6 M — with and without glasses
 - at 25 cm — with and without glasses
 - b. N.P.C. — with and without glasses
 - c. Cover test — with and without glasses
 - d. Determination of preferred eye and fusion in eyes front if the case is one of alternating squint
 - e. Motility test
 - (a) excursion in all fields
5. Diagnostic positions of gaze to determine primary anomalies, secondary deviations, secondary contractures.
6. Screen comitance test.

Same as motility test, only it is done with the screen and the covered eye is observed while the other is taken through the excursions.
7. Vergence test (Phorias only)
 - a. Prism convergence
 - at 6 M
 - at 25 cm
 - b. Prism Divergence
 - at 6 M
 - at 25 cm

After doing a complete muscle balance test, there should be no question in the examiner's mind as to what is the primary anomaly and what is to be done for it.

In lateral surgery, the operation always depends on the near point of convergence and the fixing eye. In a primary divergence insufficiency, that is an increasing esotropia in the distance with a normal N.P.C., surgery should always be done on the externi. In these cases, binocular surgery gives the best results since squints are always binocular affairs and center anomalies affect both diverging and converging muscles.

In primary convergence excesses, that is, an esotropia that increases at near with a close near point several factors have to be taken into con-

sideration. There are a few types of convergence excesses. An accommodative convergence excess calls for caution if medial surgery is being considered. In such a patient, glasses and atropine should be given a trial. It will be found that the eyes will relax at near, although neither the distance or near measurements will vary. Bilateral resections should be tried before doing a small recession of the stronger internus.

A non accommodative convergence excess with a very close near point of 30 mm or less, can be treated with a recession of the stronger medial as long as these recessions do not exceed three mm.

Secondary anomalies are treated in the same way.

The great importance of the convergence near point is that not only will it measure the patient's convergence ability, but it also points out the stronger and weaker medial rectus. The eye that first turns out on reaching the breaking point is without doubt the weaker internus. This should always be considered before attempting medial surgery. Recessions should always be done in the stronger muscle, even if it happens to be the fixing eye.

If these simple rules are followed, little trouble will be encountered in the practice of surgery in the lateral deviations.

In the cases of hypertropies combined with lateral squints, the same procedure is followed. In great hypertropias, a vertical prism is held over the eyes in order to take the near point and of course lateral surgery is performed simultaneously with the vertical operation.

If care is taken to observe and measure the convergence near point of all squinters, it is doubtful that in later years the patient will return with an over correction or very unstable fusion.

It is advantageous to remember that a lagging accommodation will weaken the convergence center and this is of great importance in the treatment of the presbyopic patient.

A good near point, the normal varies from 70-80 mm is always desirable and it should be weakened as little as possible.

SUMMARY

1. The Near Point Convergence indicates an overstimulated or underactive convergence center.

2. Accurate muscle balance tests are essential in all squints.

3. The N.P.C. points out the stronger and weaker medial muscle, which must be determined before deciding upon medial surgery.

4. Surgical failures will be minimized if the N.P.C. of all squinters is measured preoperatively.

DISCUSSION

Dr. William W. Moncreiff, Chicago: There are certain important points which the essayist has ignored or has failed to emphasize. First, granting the importance of the near point of convergence, it is only one of many important factors to be studied and evaluated in the examination of a patient with strabismus, and particularly in planning an operative procedure or procedures. Several of these factors have been omitted from the author's resume of a "proper muscle examination." Hence such remarks as the following. (1) "If these simple rules are followed, little trouble will be encountered in the practice of surgery in the lateral deviations," and (2) "If care is taken to observe and measure the convergence near point of all squinters, it is doubtful that in later years the patient will return with overcorrection, or very unstable fusion," — are decidedly overstatements.

Second, the most important condition which can be discovered by examination of the near point of convergence is convergence palsy. This is most important in planning surgical procedures in convergent squint, in which the palsy, when present, is usually a secondary convergence palsy (of disuse) associated with an amblyopic eye. (Primary convergence palsy is rare in convergent squint.) It is well known that during adolescence or later, a secondary divergent squint may ensue from a primary convergent squint with secondary convergence palsy, even without any operative procedure. Any surgery which may be done during the convergent stage in such cases should obviously be limited to the externi. The author speaks of divergence insufficiency, and convergence excess of various types, but omits any reference to convergence palsy.

Time is too short to permit an extensive discussion, or even cataloging, of important factors which belong in the study of a squint patient, the planning of operative procedures, and prognosis, but the following may be mentioned in passing: The variety or kind of squint, from numerous standpoints; the stage of squint, with particular reference to its duration and the patient's age; the degree of exophthalmos or enophthalmos; the angle gamma (or kappa); anomalies and asymmetries of the interpupillary distance; the presence and grade of secondary positive and negative correspondences; the extent of the dynamic component in so-called

accommodative squint; eccentric fixation of an amblyopic eye; the presence and distribution of symmetrizing and asymmetrizing factors of a variety of kinds, particularly with reference to the planning of bilateral operations. Most of these points have been omitted or very lightly touched upon by the essayist.

Dr. Carelli seems convinced that the position of the near point of convergence indicates by itself the tonicity or activity of the convergence "center." This is at best an inference which may not be warranted in all cases, and is a more or less academic point since we cannot operate on the convergence center, or otherwise influence it directly. A more practical point of view is to study the various conditions related to the convergence function for clues to explain the anomalies found.

Again, while not wishing to detract in any way from the importance of the near point of convergence as a factor in planning operative procedures for squint, one should bear in mind that neither this nor any other single item of evidence can provide a short cut to the proper evaluation of any given case of strabismus.

Dr. Paul V. Carelli, Chicago (closing): I wish to thank Dr. Moncreiff for his wonderful discussion. It is true we did not consider all the factors concerned. The paper was limited to discussion of the near point of convergence, and I think we brought out the importance of that point. We have seen cases operated upon in which the near point of convergence was never taken and as a result further surgery was necessary. This is really more of an inspirational paper. Having taken Dr. White's course at Northwestern, I was interested in the subject of squint. I am glad that the paper of Dr. Gailey and Dr. Morgan will also deal with this subject. Muscle surgery is one of the least known subjects with which we are concerned, and I think if we had a definite routine to follow we would see less and less cases operated on, that have to come back for further surgery.

Tuberculosis appears to be widely disseminated throughout all areas which have been to any degree subject to the influence of civilization. The only countries which can be said with any certainty to have tuberculosis death rates of less than 50 per 100,000 in the prewar period are Denmark and the Netherlands in Europe, the United States, and Australia. If the rates for the white population only are considered, New Zealand and the Union of South Africa may be added to this list.

Tuberculosis control is a problem of world-wide importance. The prewar distribution of this disease is alarming, and it is certain that the problem will be intensified during the postwar years, particularly in Europe. Sarah E. Yelton, *Pub. Health Rep.*, August 2, 1946.

A PLAN OF COOPERATION BETWEEN COUNTY HEALTH DEPARTMENTS AND TUBERCULOSIS SANATORIUM BOARDS

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JAMES W. CHAPMAN, M.D.**

There has occurred in some Illinois counties where the sanatorium Law and the Searcy Clabaugh law are both in effect, some confusion of thought regarding who is responsible for tuberculosis control. The Sanatorium Law states that it is the obligation of the Sanatorium Board "To do all things in and about the treatment and care of persons so afflicted".

The Sanatorium Law is in effect in over eighty counties in the State, while the Searcy Clabaugh Law is only effective in a few. The Sanatorium Law is thirty-one years old. The Health Department Law was passed in 1943. As time passes more counties will pass the Health Department Law. In the Counties where the Sanatorium Law has been in effect for some years, the passage of the Searcy Clabaugh Law should be the occasion for an adjustment of the Anti-Tuberculosis Program to incorporate the combined forces of the Sanatorium Board and the Health Department against tuberculosis. In Counties where the Sanatorium Board has set up a Sanatorium or clinic, the Medical Director has been up to the present, the only Tuberculosis Control Officer. His duties have been mainly concerned with the treatment of tuberculosis. He has no quarantine power or any authority over the control of patients in the community other than that power he can exercise in an educational manner with his patients. With the passage of the Searcy Clabaugh Law in Counties where there is a Sanatorium Board, the assistance of the Health Department should be welcomed as an effective means of establishing a team of workers against tuberculosis. The Sanatorium Board is concerned mainly with treatment of the Disease, the Health Department with the public control of the disease.

There should be no confusion regarding the duties of the Tuberculosis Specialist and the Health Officer.

The statement has been made several times by individuals, who had become disturbed by the lack of harmony between the health agencies that the "Glackin Act is outmoted". The Glackin

Law is not outmoted. The Glackin Law in some Communities is not properly interpreted nor administered.

The Glackin Act or the Sanatorium Law is the only law in the State of Illinois that has provided help for those ill with tuberculosis. In those Communities where there is an intelligent, well informed Sanatorium Board and a qualified Medical Director, the Sanatorium Law is a blessing to the Community. Those that say the law is outmoded offer no solution for the care of the tuberculosis sick. The Sanatorium Law has been and is very effective in some of our Counties. In those Counties where the law is in effect but the tuberculosis program is not effective, there should be some way to suggest the Sanatorium Board the program to pursue. This could best be done through the Division of Tuberculosis Control of the State Health Department.

In DuPage County, it is believed that the Glackin Act is an effective act. The Sanatorium Board has set up a clinic as a center for the administration of its program. In this clinic, the following services have been offered.

1. Sanatorium care for the active case.
No public sanatorium is operated. Available beds in four sanatoriums are used and paid for by the week.
2. Diagnostic service to the family physician in suspected cases of tuberculosis. This includes consultation, x-ray and other procedures where indicated.
3. Field nursing service in case families.
4. Out patient service for lung collapse treatments. Checking of patients and contacts.
5. Rehabilitation of the patient as a useful citizen.

This work has been in effect since 1939.

The local Tuberculosis Association has conducted the case finding surveys in the Community, in schools, colleges and industry. The Sanatorium Board Clinic has x-rayed the positive reactors. This program has been rather complete and has had interested public support.

With the event of the passing of the Searcy Clabaugh Law establishing a full time Health Department, it was felt that the two departments could work together increasing the efficiency of the Tuberculosis Control Program. The office of field nurse for the Sanatorium Board was abolished. The County Health Department

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**Health Officer, DuPage County, Illinois

nurses take their turns in rotation assisting the Tuberculosis Medical Director each morning in the chest clinic. They help with pneumothorax treatments, assist with examinations and hear the advice given. Thus they are indoctrinated in the field of modern tuberculosis treatment and control. The case load of the Sanatorium Board is divided among the health department nurses. They supervise the case families in their own districts.

The Sanatorium Board Medical Director confines himself to the diagnosis and treatment of tuberculosis, the supervision of patients and contacts and the rehabilitation of patients.

In the field of epidemiology, the Health Officer will be the case finding agent. He will work with the Tuberculosis Association in the case finding programs in schools, colleges and industry. When a case is discovered, it will be referred to the Sanatorium Board Medical Director for disposition.

The vacancy created by the elimination of a specialized tuberculosis nurse in the Sanatorium Board office has been filled by a Case Supervisor. This person is a medical social worker who works with the Sanatorium or home patient with their personal problems, directs occupational therapy and conducts rehabilitation studies where indicated and with the cooperation of the State Division of Rehabilitation assists patients in their rehabilitation. This part of the program is very important in building the morale of the patient and speeding their recovery.

Case records are kept in the Sanatorium Board office as that is the center of case supervision. Health Department nurses have case folders in their office on the patients in their districts containing a minimum of essential data. This data is mainly concerned with the status of the patient's case and periodic check ups on contacts, home conditions, etc. A tickler file kept in the Sanatorium Board office is the record of dates for periodic examinations. Routine appointment slips are sent out from the Sanatorium Board Office. The details of cooperation between the two departments can be worked out as the work progresses. It is evident that with such a plan communication between departments is more complicated than when the cases are followed

by a specialized nurse. However the advantages under this plan are:

1. Elimination of duplication of nursing visits.
2. The public health nurse's interest and education in tuberculosis is stimulated by her contact with the clinic.
3. There are many nurses all thinking about and doing tuberculosis work instead of one.

This division of duties between the Tuberculosis Specialist and the Health Officer does not conflict but makes for a better all around program. The Tuberculosis Specialist is not a Health Officer. The Health Officer is not an authority on Tuberculosis. Each has enough work in his own field and should welcome such a division of duties.

THE BRAIN IN INFANTILE CEREBRAL PALSY

HERMAN JOSEPHY, M.D.

CHICAGO

The nomenclature of the syndromes affecting the motoric system in infants and children seems to be rather confusing. A number of different terms referring to identical or related conditions are used by various authors and textbooks; on the other hand, the same denomination is not always applied for an identical clinical picture. What is called in this paper infantile cerebral palsy, is also designated as "Little's disease", as cerebral diplegia, cerebral spastic rigidity, cerebral infantile paralysis, congenital diplegia, congenital spastic paraplegia, and as hereditary spastic diplegia. Some of these terms, evidently, point to the distribution of the palsy — diplegia in contrast to paraplegia — and others to the onset — like congenital — or to the etiology — like hereditary. Of all these denominations only the term Little's disease seems to have a more specific meaning, as it refers to a palsy, which has developed from a birth trauma — that is, the term means a certain etiology rather than a clinical entity or syndrome.

Infantile cerebral palsy is an appropriate and rather noncommittal descriptive name for this

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group of motoric disorders, which are caused by damage to the cerebrum and which have started in childhood. It refers to a condition and not to a disease. This definition excludes from the classification as infantile cerebral palsy all progressive brain diseases which cause a palsy, such as familial amaurotic idiocy or Schilder's disease, and furthermore the progressive hydrocephalus with paresis of the extremities, developing as a corollary to the increase of intracranial pressure. It also excludes juvenile general paresis and chronic encephalitis.

On the other hand, the term "palsy" is used in a rather loose way, that is, not only for an actual paresis, but also for extrapyramidal motoric disorders, such as athetosis, chorea or Parkinsonism, the athetosis being the one most frequently encountered in children.

The adjective "cerebral" excludes all palsies originating from the spinal cord or from injuries to the peripheral nerves, and such which are connected with a primary muscular disease. It excludes also those originating from the cerebellum. "Infantile" means an onset in infancy or a congenital condition. It is a common clinical feature of many, if not all, cases of infantile palsy, that the affected limb or limbs exhibit retardation in growth.

One may, of course, specify the diagnosis of infantile cerebral palsy by additions, such as hemiplegia, or paraplegic type, or athetotic. However, it seems to be useful to have a common general term covering all these conditions, which are rather uniform clinically, but are diversified in pathological anatomy and in etiology.

The material which I am going to demonstrate and to discuss will prove very definitely the truth of this last statement about the variety of pathology and the manifold etiological factors connected with the neurological syndrome of infantile cerebral palsy. It was collected during the four years when I had the opportunity to work as a pathologist in the Lincoln State School and Colony. During this time I performed 156 complete postmortems upon inmates. Among these cases were 27 classifying as Infantile cerebral palsy. 22 of them were bilateral and mostly both sides of the body were affected rather equally. 5 cases exhibited a unilateral or markedly asymmetrical bilateral palsy. Prac-

tically, all cases were spastic; none of the many athetotic inmates of Lincoln State School and Colony came to autopsy.

The prevalence of the bilateral cases in this series is evident. However, it should not be forgotten that the material comes from an institution for the feeble-minded, where paraplegics and tetraplegics accumulate and also those who exhibit besides the palsy, epilepsy and mental retardation, these two deleterious complications of an infantile palsy. Hemiplegic children, especially those without fits and without marked oligophrenia, frequently can stay outside of institutions. Therefore, my material represents a choice of bad cases. But the pathology of the bad cases and of the less affected cases is basically identical.

The brain pathology of the diplegic and tetraplegic cases is more diversified than that of the hemiplegic group. Malformations of the brain are almost always bilateral and symmetrical; therefore the clinical picture of patients with a malformed brain is that of a diplegia and mostly that of a general spasticity. Destructive processes, as contrasted to malformations, are found in bilateral palsies as well as in hemiplegics; they are the only ones occurring in the hemiplegic forms.

Five of the 22 brains taken from patients with di- or tetraplegia were malformed. Eleven of them had gross destructions and in five no satisfactory anatomical basis was found for the palsy. Four of the five cases of hemiplegia exhibited destructions; one did not show any satisfactory pathology.

All malformed brains were microgyric, and all these microgyric brains were small. Some were definitely micrencephalic. The gross appearance of a microgyric brain is very characteristic. Frequently the normal gyral pattern is fairly well recognizable; however, it is distorted and obscured by innumerable small and very small irregular sulci, which divide the cortex into a puzzle and a maze of dwarfish convolutions. The gyri are not only small, but there are also too many of them. Therefore the term micropolygyria is more appropriate for this condition than microgyria. Sections through such a brain reveal that the cortex is uneven in width. The gray layer does not spread parallel to the surface, but forms irregular strands and nodes,

which often penetrate deep into the white matter. An apparently homogenous gray mass may be divided up by irregular strands of myelinated fibers offering a picture of the so-called internal microgyria. In such a malformed cortex the nerve cells appear normal or, sometimes, they exhibit the characteristics of embryonal elements.

Usually both hemispheres are equally affected. I found one brain with micropolygyria, in which one hemisphere was essentially smaller than the other one. Clinically, the spasticity was more marked on one side. Other form of malformations seem to be rather rare. Pachygyria, agyria, or large heterotopias occur occasionally in bilateral cerebral palsies.

None of these malformed brains has any trace of a destructive or of an inflammatory process. In all these cases one is dealing with a disturbance of the normal development, which goes back to an early stage of the embryonal life. Whether it is endogenous or exogenous, cannot be decided.

The second group of brains taken from children with infantile cerebral palsy show an entirely different pathology. They exhibit residues of destructive processes, which, by a general term, can be designated as scars.

Scar formation in the brain is a rather complicated process due to the fact that the central nervous system contains two different types of interstitial tissue, glia and mesenchyma. It is even more complicated in a child's brain than in that of an adult. Destruction or necrosis of nervous parenchyma results in a softening. In a child's brain, in which myelinization is incomplete, the debris is cleared away quickly, as it contains a rather small amount of lipoids. A cavity may develop, which is lined by a small layer of glia. Such a cavity, called porus, may increase in size together with a growing brain. If it is connected with the ventricular system, the pressure of the cerebral spinal fluid will not only prevent it from shrinking, but will promote its extension. This porus formation is specific for the brain of children.

Several descriptive terms are used for the designation of residual conditions resulting from destructive processes. The word ulegyria refers to the formation of small, narrow, and shrunken gyri, in which the nervous parenchyma is replaced by glia and proliferated mesenchyma. Such gyri are white and hard. They are des-

ignated also as secondary microgyria. They are basically different from the malformative microgyria described above.

The term "lobar sclerosis" is used for scar formation affecting a large area, approximately that of a lobe. It is a misnomer insofar, as the damage usually does not affect just a lobe, but rather the supply area of a larger artery or another portion of the brain which is not identical with a lobe. The gyri in such a lobar sclerosis are usually ulegyric, that is narrow, white, and hard.

Porencephaly refers to the formation of cavities, which may be single or multiple, small or large, and which may or may not communicate with the ventricles. Usually a porus is separated from the piaarchnoida by a small layer of glia, the residue of the upper layers of the cortex.

It must be kept in mind that the conditions enumerated here are basically identical, although the gross appearance may be different. The microscope proves easily that we always are dealing with the residues of a destruction, and that nervous parenchyma was replaced by proliferating glia and mesenchyma. Whether a circumscribed ulegyria, a lobar sclerosis, or, a porencephaly develops, depends upon the extent of the destruction, and furthermore probably upon the time when this destruction occurs. A porus will be formed more easily in a brain with less advanced myelinization, than in one which has already accumulated a large amount of lipoids. It is evident that the clinical symptoms in a bilateral destruction will be those of a paraplegia or tetraplegia. Theoretically one would expect that the scars seldom will be symmetrical in both hemispheres and that, therefore, the clinical examination should reveal differences between left and right. Actually, at least among the inmates of an institution for the feeble-minded, the spasticity is frequently so intense that it appears equal in both sides. In addition to that almost symmetrical scars are found rather frequently at the autopsy.

I want to mention here a peculiar condition, which is found in the brain of patients suffering from bilateral athetosis. In such cases the basal ganglia may exhibit the status marmoratus of Vogt, a marble like pattern of white and gray substance, which is produced by irregular proliferation of myelinated fibers. This is probably

a kind of reactive growth and is connected with some destructive process.

The hemiplegic type of infantile cerebral palsy exhibits an ulegyria, a lobar sclerosis, or, a porus in one of the cerebral hemispheres. The affected one may be markedly shrunken and the brain shows a cerebral hemiatrophy. This term is rather loosely used and is applied to a variety of pathological findings. It should be restricted to rare cases, in which the affected hemisphere is shrunken, but, otherwise, appears normal in its gyral pattern. Cases of this kind form a small, but typical group and have been described as examples of cerebral hemiplegia with intact pyramidal tract.

There are many etiological factors leading to scar formation in the brain of children with infantile palsy. Infections, toxic influences, and trauma are those which have to be considered in the first place.

Infectious diseases may be transferred from the pregnant mother to the fetus and may do harm to the brain. Alpers and Patten, who did considerable work upon infantile cerebral palsy and its causes, enumerate many infectious agents which have been transmitted. Recent experiences point to the importance of toxoplasmosis as an intra-uterine infection which spreads to the central nervous system. It seems that rubella of the pregnant mother may affect the brain of the fetus.

However, I found hardly any case in my material which exhibited any indication of a previous infection. It seems to me that there is a difference between those children who have to be sent to an institution and those who can stay at home in spite of the palsy. It is a common experience that children may develop a stroke with consequent palsy in the course of an infectious disease, such as measles, scarlet fever, sore throat, or others; apparently the majority of them does not need institutionalization.

Among the toxic factors, two should be mentioned, namely anoxemia and the severe icterus of the newborn. Windle and his associates have proved experimentally that anoxemia may cause severe damage to the nervous system. It can be assumed that it plays an important role in human pathology too.

Severe icterus of the newborn is one of the manifestations of erythroblastosis and is due to

isoimmunization of a Rh negative mother who is pregnant from an Rh positive father. The child may survive the jaundice and may develop an organic syndrome, as a consequence of the so-called kernicterus of the basal ganglia. Recent investigations by Cook and Yannet suggest that the role of the Rh factor in the etiology of feeble-mindedness is an important one. This might be true also for infantile cerebral palsy.

Trauma, in connection with cerebral infantile palsy, means practically always birth trauma. There is an immense literature on the birth injuries found upon the brains of stillbirths and neonatals. It is commonly assumed that they are the basis for an infantile cerebral palsy. However, Alpers states rightfully that the incidence of remote sequelae as the result of cerebral birth injury is most difficult to estimate; apparently no serious study dealing with this problem has been undertaken.

Undoubtedly the clinical history in many cases of infantile cerebral palsy suggests birth trauma. Report of an early onset of the palsy, of long and difficult labor, of the use of instruments are frequent. It is quite significant that three out of my 27 cases are twins, twindelivery, as well known, always being a danger for the newborn.

On the other hand, there is a certain difference between the findings upon the brains of stillbirths and neonatal deaths and those of infantile cerebral palsy. In the first group hemorrhages are found very frequently. In the latter, residues of hemorrhages, that is, blood pigment, is seldom found. It seems to me that the birth injury which is survived by an infant and which leads to palsy, is rather a contusion or a laceration than a hemorrhage. Such injuries may be caused by pressure, either from the bony pelvis or from instruments. The localization of the scars in two of my cases suggest very definitely such etiology. In one of my cases the distribution of the pori together with the fact that one kidney exhibited a large scar from an early infarct, pointed to an embolism.

Since tuberculosis figures so significantly in the etiology of pleurisy with effusion it is essential that these patients be followed, like any tuberculous person, by frequent check-up and X-ray examinations. J. D. Wasserug, M.D., N.E. Jour. of Med., August 15, 1946.

THE EXPRESSION OF DOSAGE IN X-RAY AND RADIUM THERAPY

IRVIN F. HUMMON, JR.

CHICAGO

The expression of dosage and x-ray and radium therapy is the foundation of scientific radiation therapy. The scope and effectiveness of radiation therapy has increased as the degree of accuracy of dosage expression has increased.

The objects of expressing this dose accurately are:

(1) To be able to reproduce repeatedly biological changes which experience has shown we can produce by radiation and which are clinically desirable.

(2) To do this with different equipment and with different technical factors.

(3) To change dosage with different conditions or because of a different patient response and know what the change amounts to.

(4) To permit the dissemination of experience in radiation therapy, and to provide a basis for the comparison of results in therapy between different clinics.

(5) To transfer information concerning therapy given a patient from one radiologist to another, when treatment must be continued elsewhere.

(6) To provide a common basis for the teaching of radiation therapy so that the students may apply their knowledge to the equipment which they may eventually use and, particularly in radium therapy, to the different forms, distribution, and strengths of radium sources which they may find available.

Radiation therapy is administered to produce a biological change in a particular volume of tissue. This change is accomplished by delivering a certain amount of radiant energy to that volume of tissue. No matter how well planned a course of radiation therapy may be there are usually some portions of the volume of tissue which will receive less radiation than others. The amount of radiation delivered to these portions of tumors is called the Minimum Tumor Dose and is the all-important factor in tumor therapy. It is from these portions of the tumor which have received the least radiation or

Minimum Tumor Dose that recurrences of the tumor are most likely to develop.

The ideal expression of dosage would probably be in terms of some physical unit which would express the amount of energy absorbed per cc. of tissue. This unit should have a direct proportionality to the biological changes produced by the radiation. Such a unit is being discussed in the literature but is not sufficiently developed for clinical application.

The present concept of dosage expression is based on the assumption that the energy absorbed per cc. of tissue is proportional to the amount of energy delivered to the place where that tissue is. This is measured by the ionization of air produced by the radiation at that point. This dosage is expressed in term of a physical unit, the "roentgen", designated by a small "r".

There is another system of expressing radiation dosage that is based upon the ability of radiation to produce an erythema of the skin. This is a biological unit and is the basis for calculating the biological effectiveness of radiation therapy. Unfortunately there is not a simply proportionality between the physical unit, the roentgen, and the biological unit, the erythema dose. This proportion varies between wide limits depending upon the quality of the beam of radiation being used. For very soft radiation, such as Grenz Rays, it only takes about 200 r to produce an erythema, while for gamma rays of radium it takes about 1000 r. The amount required for ordinary x-ray beams as used in therapy lies between these two limits.

It might be interesting at this point to list the steps which the radiologist goes through in outlining a course of radiation therapy. Many of these steps are bypassed in practice because the radiologist has developed certain routine practices that eliminate their consideration. However, for training purposes they should be gone through as in this way the procedures can be adapted to any equipment, and to different technical factors.

First, the volume of tissue to be irradiated is determined. In tumor work this includes the tumor volume plus a margin of apparently normal tissue. From his experience the radiologist decides what Minimum Tumor Dose he wishes to deliver to this volume and over what period of

time he wishes to deliver it. Next he decides upon the quality radiation which he will use, or combination of qualities. If more than one quality of radiation is used then the amount of the total Minimum Tumor Dose to be contributed by the separate qualities in erythema doses is determined. These erythema doses are then converted into roentgens for each quality.

The quality of radiation decided upon determines the technical factors to be used. In x-ray therapy these are KVP and filter. In radium therapy this is largely determined by the filter. $\frac{1}{2}$ mm. of Pt. or its equivalent is sufficient to remove all A and B rays and leave the gamma rays as the sole useful radiation. Further filtration does not appreciably improve the quality of gamma radiation, and only reduces the intensity.

The tumor dose should be as uniformly distributed throughout the volume of tissue as possible. In x-ray therapy this is accomplished by choice of Skin Target Distance and number of ports used. The number of ports used is also determined by the number required to deliver the prescribed tumor dose without exceeding the safe skin dose for any port. The air doses to deliver these calculated skin doses and tumor dose are then determined. In radium therapy the uniformity of dose is determined by the number, active length, and distribution of the radioactive sources used. The rate of administration and degree of protraction and fractionation of the dose is then determined on the basis of clinical experience. Thus, it can be seen that the outlining of a course of radiation therapy is not a simple procedure.

The expression of dosage in x-ray and radium therapy depends somewhat upon the object of that expression. If one is simply discussing the results obtained in certain conditions with a certain technic it may be sufficient to state the Minimum Tumor Dose delivered in erythema dose or, "r" and beam quality, and the time over which this dose was delivered. If there has been some unusual method of distributing this dose in reference to time, this distribution should be given. However, if one is writing an article or a textbook, or is transmitting to another radiologist, the dosage given to a case which is to receive further radiation by that radiologist, the expression of dos-

age for x-ray therapy should contain the following information:

1. Total minimum tumor dose administered in erythema doses or "r". Sometimes the maximum tumor dose is also of interest.
2. Size and position of ports used.
3. Total skin dose, including exit dose if significant, received by each port.
4. Typical treatment factors: P.K.V, Filter, HVL, Ma, Time, air dose.
5. Sequence of treatment; number of ports treated per day, rate of protraction and fractionation.

In addition to the above physical factors the size and location of the tumor being treated would be helpful.

It is surprising how seldom all of these factors are given.

With the publication of the Patterson-Parker curves, the data of Quimby and her associates, Garcia and others, the expression of dosage in radium therapy can be just as accurate as in x-ray therapy. This data has helped greatly to take the mystery and uncertainty out of radium therapy and put it on a sound basis. The definition of the roentgen has been broadened to include gamma radiation. The fundamental figure upon which radium therapy is based is that 1 mg. of radium in one hour, filtered with $\frac{1}{2}$ mm. of platinum will deliver at 1 cm. distance 8.3 r. It takes 1000 of these gamma r to produce an erythema.

In expressing dosage in radium therapy again the emphasis should be on the Minimum Tumor Dose and the time in which that dose is delivered. Knowing this, the number of mg. hours of radium or of med., the filter, and the spatial distribution of the radioactive material may be calculated. Every effort to have the distribution of the radiation as uniform as possible throughout the tumor volume should be made. However, because of the fact that radium is usually used with very short distances between the radiation source and the volume of tissue being treated, there probably will be areas within the volume which will be grossly over irradiated.

There are two factors in radium therapy that deserve emphasis. One is the penetrating power or quality of gamma rays. This seems to be well known. They have a HVL of 1 cm. of

lead and they are so penetrating that in calculating dosage with them their absorption in tissue may be neglected and their intensity calculated solely on the basis of their geometrical spread. It is this other factor of geometrical spread which seems most difficult to comprehend. The intensity of gamma radiation varies exactly as other forms of electromagnetic radiation, inversely as the squares of the distances involved. This means that the intensity of radiation very close to a radioactive source may be very high but that a relatively short distance away it will have fallen off to a great extent. For example, take the case of a simple cervical tandem 1 cm., in diameter, with an active length of 5 cm. The tissue in contact with the mid-point of the tandem will receive 10 times the intensity of radiation that a point $2\frac{1}{2}$ cm., further out will receive. If one uses 3500 mghr. of radiation with $\frac{1}{2}$ mm. pt. filter the cervical canal will receive about 30 erythema doses and a point $2\frac{1}{2}$ cm. out will receive about 3 erythema doses. If one considers 5 E as the minimum for a cancericidal effect and the tumor extends out $2\frac{1}{2}$ cm. it is obvious that it has not received enough radiation.

The complete expression of dosage in radium therapy should contain the following information:

1. Minimum tumor dose delivered in r or erythema doses.
2. The amount of radium used and the time of application or the number of mcd.
3. The filtration.
4. The number, active length, strength, and spatial distribution of the radioactive sources used.

From this it is obvious that just to give the number of mgm. hrs. of radium used is far from an adequate expression or radium dosage.

To be able to furnish the data necessary to fully express radiation dosage it is necessary to keep full and accurate records. The form set up by the Standardization committee of the Radiological Society of North America is highly recommended. We have adapted this to our own set-up and find the record form we use very helpful.

In conclusion I should like to emphasize again that the Minimum Tumor Dose be the primary thought in radiation dosage. The number of

treatments, the technical factors used, the number of ports, the skin dose, and the air dose are only incidental to the delivering of the primary object of radiation therapy which is the Tumor Dose. The same thing is true of radium therapy in which the number of mg. hrs. of radium or the number of mcd. used; and the filtration, the number, active length, strength and spatial distribution of the radioactive sources are incidental to the delivering of the Tumor Dose.

OBSERVATIONS ON MALNUTRITION IN SANTO TOMAS INTERNMENT CAMP

EMMET F. PEARSON, M.D.

SPRINGFIELD

A unique experiment in nutrition was a *fait accompli* incidental to the internment of 4,000 American and allied national civilians by the Japanese in Santo Tomas Internment Camp, Manila, from January, 1942, to February, 1945. Here, in the tropics, was a closed and controlled white community which was forced to subsist on an oriental type diet in gradually decreasing quantity. Records kept by the medical staff of the internment camp were made available to the author who served with one of the army hospitals established within this camp after its liberation. Observations, studies and statistics were made on the internees after their liberation and these were correlated. This was the only prisoner of war camp of the recent war about which medical information, before and after its liberation, has been published.¹

During 1942 and 1943 there was no actual starvation within the camp. The internees were allowed to purchase foods from the natives. Shortly after the camp was established in 1942, a Japanese official states, "While we are victorious, we can afford to be magnanimous." When the Japanese began losing on all fronts, a drastic change in policy toward the internees was instituted. They were allowed no contact with the outside and were fed in gradually diminishing quantities. The daily ration promised by the Japanese was 400 grams of rice, 100 grams of fish, 20 grams of sugar and 10 grams of cocoanut oil. This was presumably the diet of a Japanese soldier. Such quantities were never approached. The actual amount issued

¹Read before the Joint Session of the Illinois State Medical Society, May 14, 1946, Chicago.

daily, per individual, was as follows:

QUANTITY OF FOOD ISSUED PER CAPITA
IN 1944

1944	Protein Grams	Carbo- hydrate Grams	Fat Grams	Calories
February	36.6	295	13.8	1,452
March	39	349	11.7	1,660
April	35	289	9.8	1,380
May	38.7	306	13.8	1,503
June	39	355	17.8	1,736
July	28.6	257	19.8	1,321
August	29	285	11.5	1,360
September	27.8	252	12.6	1,229
October	24	203	12.4	1,020
November	25.5	194	13.4	999
December	19.6	183	9.	898
Average—1944	31.2	270	13.2	1,323

It should be noted that the calories during 1944 gradually diminished from 1400 to 900 per individual, but more important was the fact that the protein ration dropped from 30 grams per day to about 20 grams. The effect of this type of feeding is conspicuously demonstrated by the mortality curve as shown herewith.

KNOWN DEATHS FROM ALL CAUSES
— ALL CAMPS — BY MONTHS

1942	January	6
	February	5
	March	6
	April	9
	May	8
	June	10
	July	12
	August	10
	September	8
	October	13
	November	8
	December	11
1943	January	5
	February	12
	March	5
	April	3
	May	9
	June	8
	July	8
	August	12
	September	6
	October	7
	November	5
	December	5
1944	January	5
	February	12
	March	4
	April	8
	May	6
	June	5
	July	9
	August	8

	September	7
	October	12
	November	19
	December	26
1945	January	43
	February	52
	March	21
	April	4
	May	1

The diet issued by the Japanese consisted of rice, some corn meal, a yam-like potato called camote, and, rarely, a small quantity of dried fish. A leafy vegetable called talinum was grown in the camp.

A survey made in the camp in August, 1944, showed that 27% of the internees had edema of the ankles and 80% had loose stools. After August the edema rapidly developed to epidemic proportions, so that by December 80% of the inmates had developed some degree of edema. The onset in the majority occurred when the daily protein intake dropped below 30 grams per capita.

Of the 435 internees who died during the internment in Santo Tomas and two auxiliary camps, the cause of death was attributed to malnutrition or beri beri in 60 individuals. There were 82 deaths attributed to heart failure, 43 to tuberculosis, and 30 to various intestinal disorders. In many of these cases death was precipitated by malnutrition.

After the camp was liberated, 1202 internees were admitted to the United States Army Hospitals, 567 of whom were given the primary diagnosis of malnutrition. The majority of these individuals had various stages of edema. The blood plasma protein determinations on them were universally low. The total protein was below 5 grams, albumin below 3 grams per 100 cc in almost every case tested. Less than 5% of the malnutrition cases had sufficient signs of peripheral neuritis to be considered beri beri. The edema was clearly due to hypoalbuminemia and not to vitamin deficiency. A supply of thiamin chloride reached the camp from American Red Cross sources in December, 1944, and generous intake of that vitamin did not notably affect the malnutrition edema unless there was also an adequate protein intake.

During the month of January, 1945, the crescendo of starvation was rapid so at the time the camp was liberated in February, mortality was increasing daily. The Army hospitals were

equipped with blood plasma, evaporated milk, powdered eggs, and some meats. In the severely hypoproteinemic cases, one or two units of plasma were given daily, and the individuals were encouraged to gradually increase their protein intake. Under this regime the vast majority of nutritional edema cases cleared up promptly. In a few cases the damage to various tissues seemed to be irreversible, and in spite of supportive treatments, the individuals continued to lose ground and finally died. One gained the impression that the breaking point or point of irreversibility depended upon the age of the individual, the older persons being most affected, and upon the presence of other complicating diseases, such as bacillary or amoebic dysentery.

An interesting observation was that clinical evidence of vitamin deficiency was rare. A small percentage of individuals showed some evidence of peripheral neuritis; in a few there were some eye signs thought to be due to Vitamin A deficiency, but there were no known cases of scurvy, pellegra, no ariboflavinosis and no rickets.

SUMMARY

The following deductions based on statistics and observations on the internees appear justified:

1. When the daily protein intake below 30 grams per capita, serious hypoalbuminemia developed.

2. Nutritional edema was present in 80% of recovered personnel and was due to hypoalbuminemia and not primarily related to vitamin deficiency.

3. Other important findings were secondary anemia — 85%, average loss of weight — 42 lbs., diarrhea — 80%, urinary frequency — 74%, pain in extremities — 40%, visual disturbance — 12%.

4. Psychoneurotic symptoms were rarely encountered.

5. Clinical signs of vitamin deficiency were rare.

6. In some cases of severe malnutrition, irreversible changes occurred in certain tissues, which prevented response to restoration measures. Thus, in spite of all supportive treatment, these individuals died.

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MODERN CONCEPT OF HEREDITY

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The Premendelian view of heredity in accordance with Galton's law of ancestral inheritance was that resemblance passed from parents to children as a total unit character. As heredity produced resemblance of parents and offspring, it was induced that all familial similarities, physical and mental must be inherited, and the possible influence of environment was ignored as in the "Family History School" of Francis Galton. This method was unscientific as he tried to explain psychobiological phenomena with historic documents.

It was not until 1902, after the rediscovery of Mendel's paper, "Research on Plant Hybrids," that the era of scientific genetics began. Contrary to previous assumptions, Mendel conceived the appearance of an individual as a complex of characters which, if inherited, owed their manifestations to many single and independent factors. The physical basis of these factors were not proven until the breeding mechanism of *Drosophila Melanogaster*, the vinegar fly, was detected by T. H. Morgan and his co-workers. Then they localized the heredity process inside of the chromosome in the cell nucleus. The chromosomes consist of numerous particles, the genes, now recognized as the transmitters of heredity. The human zygote is estimated to have 10,000 to 15,000 genes. These genes, bound together like beads, show normally the same spacial arrangement or locus and enable geneticists to draw topographic maps of the chromosomes. The gene, very probably a nucleo-protein molecule of the length of one ten millionth of an inch interacts with the surrounding cytoplasm and activates as catalyst the chemical process of development, that is, growth and differentiation. Genes do not transform themselves directly into particular traits; they give cells only the potentiality to development which is directed by the gradient fields of environment with all kinds of physico-chemical determinants.

In contrast to Mendel's theory, the cell rather than the whole organism is now to be recognized as a genetic complex, and it is denied that every

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character is determined by only one independent factor. Many genes synthesize a single character, and each of the genes affects the organism in many ways. A relatively simple appearance, the eye color depends on at least 20 genes. The more complicated a character is, the more genes are assumed to be involved. If a certain gene is lost from the gene complex the zygote can but exceptionally develop, ordinarily it becomes not viable at all. It is justified to figure that the human species has many thousands of live essential genes. Beliefs that hereditary ataxia, Huntington's Chorea and other heredodegenerative diseases of the central nervous system are due to single dominant or recessive factors do not concur with recent results of biological research.

Modern genetics demonstrated the lasting effect of various physical agents on the genes. Radio-genetics revealed that gene mutation can be induced by radiating energies and thus prove the far reaching influence of environment.

In the method of "Pure Line Breeding" creatures of the closest genetic relationship are observed. W. Johannson, who experimented with beans, and Dobzhansky and Wright, who operated with *Drosophila* populations found even in pure lines a great variety which was ascribed to the changing factors of the physical environment.

The closest human relationship can be studied in the so called identical twin method. However, this way of investigation cannot reveal a definite gene constellation. It gives only a vague estimate of the ratio of heredity to environment influence. Thereby it was learned that physical features are more under the sway of heredity, and mental traits more under the power of the environment. In a recent study, temperament was shown to have a greater correlation with the environment than had been thought previously. At the present time, however, there is no direct way to observe the dynamics of human heredity and to trace features to a certain human gene relationship.

Since we assume that heredity in man follows the same pattern as in plants and animals, we are entitled to hold inheritance responsible for

certain conditions provided the observed facts will agree with the known genetics.

The question of heredity has been raised in no other discipline of medicine as often as in neuropsychiatry. The sheer diagnosis of neuropsychiatric diseases is rather difficult itself, but much more laborious, especially in mental disorders, is it to calculate the probability of inheritance. A bewildering terminology with multiplicity of connotations renders it the more difficult to give precise and generally understandable descriptions. Further pitfalls of diagnostics to be avoided are mixing biological and psychological concepts and expressing sociological values in medical terms.

Organic structures generally become faulty by a qualitative change. Fractures, degeneration, tumor infiltration, ulcers, etc., are pathological without regard to the extent of involvement. Mental traits, however, appear abnormal by a plus or minus variance. Structures and organs with all their inter-relations are understood to be parts of an organism. Mental traits are definitely not parts of a personality, but aspects of it. One also must consider that the symptomatology of the so-called organic mental disorders gives no clue as to the magnitude of structural changes, and that the borderline of normal behavior, in reality not discernible, is drawn in an arbitrary, conventional and subjective manner.

G. E. Coghill revealed that all animal behavior is integrated before the nervous system has developed, he further came to the conclusion that there are no primary reflexes which combine to a larger unit of behavior, but "that reflexes are secondary and are developed by individuation within a total behavior pattern of primary integration."

Heredity is in the last end a chemical process which cannot be analyzed, with methods of psychology which observe how a human being as an organism-as-a-whole, responds to the environment. Therefore, purely "functional" characters cannot be brought into a causal connection with a specific gene alteration. Consequently, mental disorders, like the so called familial mental deficiency and functional psychosis, cannot be assumed to be inherited as long as no steady cor-

relation with structural or physicochemical peculiarities will be disclosed.

Before searching family lines for hereditary conditions, one must ascertain if a presumptive diagnosis refers to the same nosological entity in both present and past. After observation of an accurate diagnostic procedure, checking of pedigree reliability and other informing sources the interpretation of all data obtained might be tried.

If all premises of the above outlined diagnostics are given, and all incidents fit then into the system of the now recognized genetics, heredity might be concluded to be the etiology. Yet it will be very seldom possible to approach closely that conclusion. In medical practice, usually a suspicion more or less justified will be all which might be claimed.

SUMMARY

Heredity is considered a chemical process activated by interdependent genes which are discernible protein molecules. Genetics cannot tell yet how to select the best gene carriers or genotypes and cannot advise how to prove inheritance of purely mental disorders. Developmental capacities of a cell are guided by its genes; but particular differentiation and growth of cells are directed by environmental forces.

COMMENTS

At the present time, geneticists cannot offer any help to preventive medicine. There is, however, no reason for the pessimism of F. J. Kallman and M. A. Bigelow who fear that "the less able strains in a nation might continue to outbreed the more able, and then nations might become ripe for conquest by some abler nations."

In the evolution of plant and animal kingdom the struggle of life competition has extinguished inferior mutants and let survive fit races only. Without eugenics, science has progressed, living standards have risen, duration of life has doubled, because the effects of physical, socio-economical and cultural factors of environment have been explored and utilized for the benefit of the individual. For a long time to come the progress of preventive medicine will depend entirely on the efforts to study the environmental effects upon men. One must agree with G. D. Stoddard who said that "if a social system can unleash such forces in a population biologically mongrel in

type our efforts may center less in the putative quality of human materials and more in the opportunities for stimulation and development."

One has to warn against overemphasizing and popularizing the role of heredity in human society. That has been done too long and too much already in history and served to rationalize the delusions of innate aristocratic, racial and national superiorities and contributed to tyranny, persecution and war.

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DISCUSSION

Dr. Alex J. Arieff (Chicago): This concise and lucid presentation of Dr. Neuer's is quite timely. Overpopularization of any theory always produces some harm. When Mendel brought out his theory in 1860, it took 40 years to bring it to the fore. After that heredity theories became quite popular and everything was blamed on heredity. It remained for Thomas Morgan to recognize the process in the chromosome. In spite of the good fundamental work, many workers have over-simplified the processes and attempted to deal with people as though they were peas.

I was asked to discuss this paper from the viewpoint of the Municipal Psychiatric Institute of Chicago. In 1921, Dr. William Hickson, director of the Institute, (at that time called the Pyscopathic Laboratory) because of his interest in heredity cooperated with H. McLaughlin of the Eugenics Office in Washington, D. C., and the latter published a book on eugenical sterilization in the United States.

You can see in those days things appeared to be a little more simple. In Hickson's report 1500 patients were called "defective delinquents" and committed to an institution as feeble-minded or insane. Institutionalization was preferred to jailing in helping to settle more crimes. One gathers from their work that they considered dementia praecox and feeble-mindedness to be hereditary. As you know, the patients seen at the Municipal Psychiatric Institute are mostly court cases, the arrests arising from any sort of offense, excluding a felony, and when the court sees fit, they are sent in for an examination. In Hickson's time, most of the cases were either obviously insane or feeble-minded (65% dementia praecox and 35% feeble-minded). In our case load, about 3200 a year, about one-third are certified insane or feeble-minded and of that number, not all of the individuals remain permanently institutionalized. Many of them have acute episodes and are later released to return to society. It is the other 65% we see who present to us the greatest problem.

Dr. Hickson's idea was that most conditions are hereditary and that if these individuals could be institutionalized and many or most sterilized, that would solve society's crime problem. Because of these conclusions, a bill called the "Crime Prevention Bill," was put forth in the State Legislature in 1921. This provided for segregation of incorrigible criminals and/or

individuals with mental or moral defects. The mental defective was classified as one having (1) a defect in intellect, (2) a defect in emotions, (3) a defect of will with criminal propensities who is a menace. This would put away all criminals and future sterilization would do the rest. I believe all lawyers would see to it that such a bill would not be passed, — and it was not passed. However, in 1937-38, a more select bill, the Sex Psychopathic Act, was passed, but up until a week ago not one case had been committed in Cook County under its provisions.

As stated previously, we know that most of the problems which we have at the Municipal Psychiatric Institute are not those which can be solved by institutionalization and/or sterilization. If you sterilized everyone in the world, I suppose that would solve all the problems of our time.

The problem is not a simple one, in spite of the good work of McLaughlin in publishing this book. The study of heredity is a great problem. One must have adequate facilities for studying the various diseases. In Psychiatry, patients as the psychopath should be brought to some place where there would be adequate personnel to study them over a long period of time. When this is done, and only then, will any definite headway be made.

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DISCOVERY OF ANESTHESIA MADE EXPERIMENTAL SURGERY POSSIBLE

Doctor Points To Anesthesia As Important Contribution To Advances In Surgery And To Realm Of Medicine

To most people the introduction of anesthesia into surgery implies the elimination of pain from operations whereas the result is more far reaching, according to Evarts A. Graham, M.D., of St. Louis.

Writing in the January 11 issue of *The Journal of the American Medical Association*, Dr. Graham, who is from the Department of Surgery, Washington University School of Medicine and Barnes Hospital, reviews the significance of anesthesia in medical progress during the last hundred years.

On October 16, 1846 William T. Morton, an American dental surgeon, publicly administered ether at the Massachusetts General hospital while Dr. J. C. Warren performed a painless operation. "To the layman this important discovery usual-

ly implies only that now the patient could undergo an operation without the pain which formerly had to be endured," states the author. "Actually, however, as with most fundamental discoveries, the results were much more far reaching. Speed no longer was the important factor. Slapdash surgery was supplanted by slower but more careful work. Again, the muscles of the patient were relaxed and there was no struggling. Many modern operations could not be performed without the relaxation of the patient, and in all operations it is desirable that there should be no struggling. But aside from the beneficial effect on the human patient the discovery of anesthesia made possible to operate on animals without pain. As a result, therefore, of experimental operations painlessly performed on animals a tremendous amount of knowledge was acquired which not only advanced the art of surgery but affected the whole realm of medicine.

"The functions of organs could now be studied by noting the effects of their removal. For example, how could one suppose that the pancreas was concerned in the use of sugar except by the fact that its removal immediately resulted in the condition of diabetes? Various operations on the stomach and intestines of animals taught the physiologists much about the processes of digestion in addition to paving the way for the surgeons to apply some of those operations to man for curative purposes. Indeed, practically all of our fundamental knowledge of the functions of our various organs has been derived from experimental operations on animals, and most of that knowledge has been acquired since it has been possible to use general anesthesia for the experiments. The development of the scientific basis of medicine, therefore, has depended to a considerable degree on the existence of a method of anesthetizing experimental animals."

Tuberculosis, dysentery, pyogenic infections, scarlet fever, and pneumonia were the fatal complications in most of the persons dying from malnutrition at Leningrad (during the war). The acute virulent type of tuberculosis has been noted in many parts of Europe in famine.

A constant and depressing conclusion remains. War inevitably creates famine and even the most admirable medical and social efforts of the community only suffice to ameliorate the appalling consequences. Josef Brozek, Samuel Wells, and Ancel Keys, *Am. Rev. of Soviet Med.*, Oct., 1946.

U. S. PUBLIC HEALTH SERVICE PROVIDES PROOF DEMEROL IS ADDICTING DRUG

More and more evidence is being accumulated at the United States Public Health Service Hospital at Lexington, Ky., to show that Demerol is an addicting drug.

Three cases illustrating addiction to Demerol are reported in the December 28 issue of *The Journal of the American Medical Association* by Herbert Wieder, M.D., Assistant Surgeon (R), United States Public Health Service, Lexington.

Dr. Wieder points out that Demerol "should be regarded as an addicting drug in the same class as the opiates."

Demerol, which was discovered in Germany, is under federal narcotic control.

NEED FOR PREVENTIVE MEASURES TO ARREST RINGWORM OF SCALP

Two Doctors Tell How An Epidemic Of This
Infection Was Met And Overcome By
Two Cities In Minnesota

How two cities met and overcame an epidemic of ringworm of the scalp is told by two doctors writing in the February 1 issue of *The Journal of the American Medical Association*.

The doctors—Richard J. Steves of Des Moines, Ia., and Francis W. Lynch of St. Paul—are from the Division of Dermatology, University of Minnesota.

"An unusual opportunity presented itself to study an epidemic in the twin cities of Minneapolis and St. Paul, where every form of ringworm of the scalp was rare prior to 1943," state the authors. "In 1945 and 1946 about 747 cases were observed in Minneapolis, St. Paul and surrounding communities. *Microsporon audouini* was the organism responsible for all cases in St. Paul and surrounding communities, but not in Minneapolis, where nearly 20 per cent of the cases were caused by other types of fungi."

There findings in this study are as follows:

"Of 635 children infected by *M. audouini*, the average age was 7.2 years, the ages varying from one to 16 years.

"Infection was found nine times as often in boys as in girls.

"The epidemic apparently began in St. Paul with the infection of a Negro family, and three per cent of the total cases were observed among Negroes. This is approximately 50 per cent greater than the proportion of Negro persons to the total population."

The disease spread with such rapidity during 1945 that for a time the epidemic threatened to get out of control in St. Paul. The authors present the following figures to illustrate the increase: On Jan. 1, 1945 there

were two cases in Minneapolis and 51 in St. Paul; on Jan. 1, 1946 there were 51 cases in Minneapolis and 584 in St. Paul.

Two types of treatment were attempted. In a selected series of 486 children, 25 per cent of 298 patients were cured by removal of the hairs by hand and local applications of simple remedies, and 80 per cent of 188 patients were cured by x-ray treatment.

The Wood light is valuable in diagnosing ringworm of the scalp. In a darkened room, under this light, normal skin and hair fluoresce faintly, while hairs infected with the fungi show brilliant beads of fluorescence and scaly areas appear turquoise blue. The physicians state that the "use of the Wood light is indispensable in the presence of an epidemic. It is used in surveying schools to detect early or unrecognized cases, and it is the only satisfactory method of determining when a case has been cured."

The authors, cognizant of the present country-wide epidemic of ringworm of the scalp, sent questionnaires in January 1946 to the health officer in at least two cities in each state and in each city with a population of over 40,000. "Replies were received from 175 of 220 inquiries," they state. "Epidemic ringworm of the scalp had appeared in 61 cities, and replies indicated that it probably was present in 27 additional cities."

Drs. Steves and Lynch point out that "in the presence of an epidemic the individual physician cannot handle the problem alone. The public health aspects of the disease far outweigh the treatment of the individual patient, and it is the duty of the school, city, county and state health departments to take adequate and early precautions to prevent spread."

They concluded with the statement that "the greatest incidence of the disease occurs in the East and Middle West. This may be due to New York City, Washington, D. C., Chicago and Detroit acting as large foci from which other communities are infected."

RAGWEED, COMMON CAUSE OF ASTHMA AND HAY FEVER, MAY PRODUCE RASH

Ragweed, common cause of asthma and hay fever in the United States, may also cause inflammation of the skin, according to three Rochester, N. Y., doctors writing in the current issue of *Occupational Medicine*, published by the American Medical Association.

The doctors, all from the Medical Department of the Eastman Kodak Company, are Benjamin J. Slater, Associate Medical Director, John L. Norris and Nathan Francis.

They state that "while ragweed is the commonest cause of asthma and hay fever in the United States, it rarely causes dermatitis, not unlike that seen after exposure to poison ivy, oak or sumac. The rash is usually distributed on the exposed surfaces of the body, such as the face, neck, forearms, hands, legs and feet, but may, like other forms of dermatitis venenata, involve the whole body. The condition is not hereditary, and, as a rule, those who get the dermatitis from the ragweed do not get hay fever or asthma."

Symptoms usually appear in August and end with the frost, corresponding with the period of pollination of ragweed. However, the authors point out that the eruption may appear as early as May, when the ragweed plant begins to grow, and may continue well up to November, as the ragweed plant maintains its vitality up to that time.

Farmers, grain handlers and hunters are warned that contact with the dried weed and seed will produce dermatitis at any time of the year if they are sensitive. The eruption may also be continued by pyrethrum insect powder, turpentine, vegetable oils or other material which can cause dermatitis.



EDUCATION

and

RELAXATION

at your

ANNUAL MEETING

May 12, 13, 14, at Chicago

Clinical Pathological Conference

PRESENTATION OF CASES

By

HOWARD WAKEFIELD, M.D., Chairman

EDWIN F. HIRSCH, M.D., Pathologist

St. Luke's Hospital

CHICAGO

Case 1.

LARGE GLIOMA OF THE SUPERIOR VERMIS OF THE CEREBELLUM

A 25 year old white male was admitted to St. Luke's Hospital in the care of Doctor Eric Oldberg on September 21, 1946, complaining of headaches of two weeks duration.

Two weeks before admission the patient began to have headaches, at first dull in character and noticed mainly in both temporoparietal regions. Later they were described as throbbing in nature and were made worse by movements of the head. During the three days before entering the hospital he was confined to bed with violent headaches, vomiting, photophobia and was said to be disoriented during part of this time. A lumbar spinal puncture revealed a spinal fluid pressure of 190 mms. of water. The past history was irrelevant.

When admitted he was alert and well oriented but complained of a severe headache. The temperature was 99.2° F., the pulse 60, the respirations 22 per minute and the blood pressure 124/70. The left pupil was slightly larger than the right and both reacted to light. There was a slight nystagmus to the right. Movements of the head increased the pain. There was a mild ataxia in the finger-to-nose test.

There were 4,720,000 erythrocytes and 6,500 leucocytes per cmm. of blood and the hemoglobin was 14.8 gams percent. On September 23 a lumbar puncture yielded clear colorless fluid with

an initial pressure of 200 mms. of water. The pressure was 120 five minutes after removing 5 cc. of fluid. There were 4 leucocytes per cmm. of fluid, the Wassermann and Pandy tests were negative, there were 50 mgm. percent protein and the colloidal gold curve was 1112221000.

On September 24, 1946, a right ventriculogram was performed and a moderate symmetrical hydrocephalus of the lateral and third ventricles was revealed. An exploratory operation of the posterior cranial fossa was contemplated but the patient expired before this was attempted on September 25, 1946, his fifth hospital day.

The essentials of the anatomic diagnosis of the postmortem examination are:

Large glioma of the superior vermis of the cerebellum;

Moderate symmetrical hydrocephalus of the lateral and third ventricles of the brain;

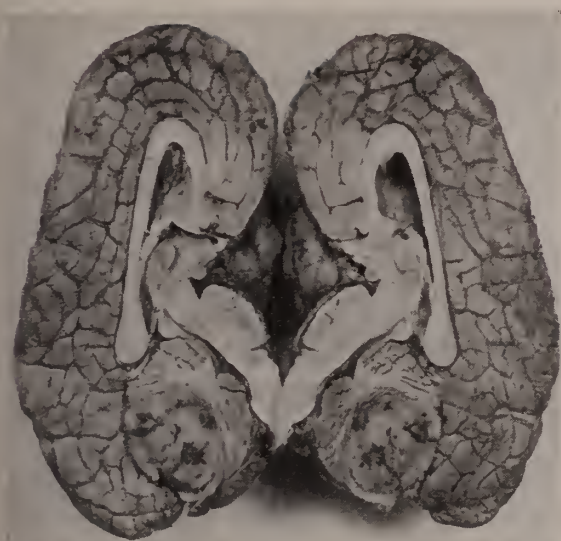
Moderate flattening of the convolutions and narrowing of the sulci of the brain;

Recent ventriculogram wound of the scalp and burr hole of the calvarium of the right side of the head;

Hyperemia of the lungs;

Hypertrophy of the myocardium of the heart.

The complete postmortem examination demonstrated no unusual changes in the neck and trunk tissues. The essential pathology was in the brain. The brain with the upper half of the dura weighed 1400 gms. The cerebral hemispheres were symmetrical and had no regions of softening or tumor masses. The convolutions were moderately flattened and the sulci correspondingly narrowed. The cerebellar hemispheres were symmetrical. In the midline of the vermis on the superior surface of the cerebellum was an elevated grey yellow firm tumor, partially necro-



Case 1. Figure 1. Photograph illustrating the large glioma of the superior vermis of the cerebellum.

tic, 5.0 by 4.0 cms. and elevated 1.5 cms. The center of the tumor was in the midline. The leptomeninges were thin and translucent, the blood vessels at the base had thin walls. After formalin fixation the brain was hemisected in the midsagittal plane (Figure 1.). In the right parietal lobe 6.5 cms. from the occipital pole and 2.0 cms. from the midline was a ventriculogram needle puncture laceration 1 cm. in diameter which extended to the lateral ventricle. The tumor in the midline of the cerebellum extended to the posterior margin of this portion of the brain and was 4 cms. in diameter. It compressed the cerebellar tissues and the aqueduct. The tumor tissues did not communicate with the fourth ventricle or with an ependymal surface. Histologically the cellular tumor tissues were spongioblastic glioma.

Case 2.

TUBERCULOSIS ULCERATION OF THE TERMINAL ILEUM, ILEO-CAECAL VALVE AND ASCENDING COLON

A 71 year old white female entered St. Luke's Hospital in the care of Doctor R. C. Roskelley at 4:05 p.m. on September 29, 1946, complaining of abdominal pain of two days duration.

She had complained of a poor appetite during the last year and had lost an estimated 40 pounds of weight during this time. She was treated for anemia with "Lextron and shots" during part

of this period and during the three and one-half weeks before admission she remained in bed at home. She had complained of burning pain on urination for the past two weeks and two days before admission abdominal pain was noticed which was intermittent in the beginning but became more constant and involved the abdomen generally. There were four loose stools during the two days before entering the hospital.

At the time of admission the patient was dehydrated, incoherent and uncooperative. The respirations were said to be "gasping", the temperature was 102° F., the pulse was 138 per minute and the blood pressure was 75/55. There was considerable voluntary rigidity of the abdomen and the patient complained of pain wherever the abdomen was palpated. The pain seemed to be most intense in the right lower quadrant and there was thought to be a palpable mass in this region.

She was taken to the x-ray Department for a film of the abdomen about two hours after admission, and she expired during the examination. The x-ray findings were: "Numerous phleboliths in the pelvis. Calcified para-iliac nodes. Calcification of the pelvic blood vessels and femoral arteries. Osteoarthritis involving the lumbar spine. Obstruction involving the small bowel."

The essentials of the anatomic diagnosis of the postmortem examination are:

Tuberculous ulceration of the terminal ileum, ileo-caecal valve and ascending colon;

Spontaneous perforation of the ileum;

Acute generalized fibrino-purulent peritonitis;

Nodular tuberculosis of the mesentery of the ileum;

Miliary tuberculosis of the lungs, liver and spleen;

Abscess of the right lower quadrant of the peritoneum;

Atherosclerosis of the aorta and its main branches.

The emancipated body of this senile white woman weighed 93 pounds. The peritoneal cavity contained about 200 cc. of a turbid green-yellow fluid, and there was a generalized fibrinous peritonitis binding the loops of small bowel together. The lower end of the ileum was adherent to the parietal peritoneum in the region of the right inguinal ligament and beneath this was an abscess filled with yellow exudate 5 cms.



Case 2. Figure 2. Photograph illustrating the tuberculous modules on the mesentery of the ileum. The probe is in the lumen of the spontaneous perforation of the ileum.



Case 2. Figure 3. Photograph illustrating the tuberculous ulceration of the lining of the terminal ileum, ileocecal valve and ascending colon. The probe is in the spontaneous perforation of the ileum.

in diameter. On the antimesenteric border of the ileum here, at a level 12 cms. from the ileo-caecal valve, was a perforation 5 mms. in diameter. The tissues about it were gangrenous. The wall of the ileum from here to the ileo-caecal valve was thickened by fibrous tissue and on the peritoneum were firm grey nodules 2 to 4 mms. in diameter (Figure 2). When the bowel had been opened, beginning at a level 24 cms. proximal to the ileo-caecal valve the lining of the bowel was ulcerated, granular, and without its usual folds (Figure 3). Two islands of mucosa without ulceration 3.5 by 1.8 cms. and 2.0 by 1.4 cms. were in this portion of the bowel. Although not ulcerated, these regions were scarred. The perforation of the ileum was 3.5 cms. distal to the proximal edge of ulcerated tissues. The wall of the ileum here was thickened to 6 mms. and the lumen was greatly reduced. The ulceration of the ileum extended into the ileo-caecal valve and into the caecum for 5 cms. At a level 11 cms. beyond the ileo-caecal valve was another ulcer 5 cms. long and 3 cms. wide. The ulcerated tissues of the ileum and colon, histologically were tuberculous and there were also caseous miliary nodules in the lungs, liver and spleen.

Case 3

SPONTANEOUS RUPTURE OF A LARGE ANEURYSM OF THE LEFT MIDDLE CEREBRAL ARTERY

A 68 year old negress entered St. Luke's Hospital in the care of Doctor R. Dolkart on October 6, 1946, with a paralysis of her right side and coma of one day's duration.

She had felt well during the day before entering the hospital, but while attending church in the evening had a sudden "sickness" with nausea and vomiting. This was followed by flaccid paralysis of the right side and coma. A history of preceding illness was not obtained.

She was comatose but responded slightly to painful stimuli at the time of admission. The temperature was 98.8° F., the pulse was 88, and the respirations were said to be Kussmaul in type at a rate of 28 per minute. The respirations later were said to be of the Cheyne-Stokes type. The blood pressure was 190/108. When first examined there was "flaccidity" of both sides, more marked on the right. During the first few hours in the hospital, "generalized spasticity" developed.

There were 4 plus sugar and acetone and 500 mgms. percent of albumin in the urine. The blood sugar was 220 mgms. percent and the CO₂ combining power of the blood was 51.4 volumes percent. There were 3,620,000 erythrocytes and 14,900 leucocytes per cmm, of blood and 10.8 grams percent of hemoglobin. The differential white count revealed 81 polymorphonuclear leucocytes, 5 band forms, 1 eosinophil, 12 lymphocytes and 1 monocyte. The blood Kahn test negative.

A lumbar spinal puncture yielded grossly bloody fluid with an initial pressure of 250 mms. of water. Fluid was withdrawn until the pressure was 160 mms. With diabetic management the blood sugar was reduced to 89 mgms. percent the day after admission. The blood urea nitrogen, non-protein nitrogen and protein were normal. She remained comatose and the day after admission it was noted that there was a paresis of the left side of the face, marked rigidity of the neck, left arm and leg. The Babinski sign was positive on both sides. The temperature rose to 101.4° F. about 10 hours after admission and went as low as 96.6° F. the following day. At this

time the pulse was 118. She expired on October 8, 1946, her second hospital day.

The essentials of the anatomic diagnosis of the postmortem examination are:

Spontaneous rupture of a large aneurysm of the left middle cerebral artery;

Large recent hemorrhage into the left basal nuclei, left lateral ventricle and subarachnoid space of the brain;

Marked atherosclerosis of the cerebral arteries and of the aorta and its main branches;

Hypertrophy of the myocardium of the heart;

Hyperemia and edema of the lungs;

Marked calcification and ossification of the dura mater of the brain.

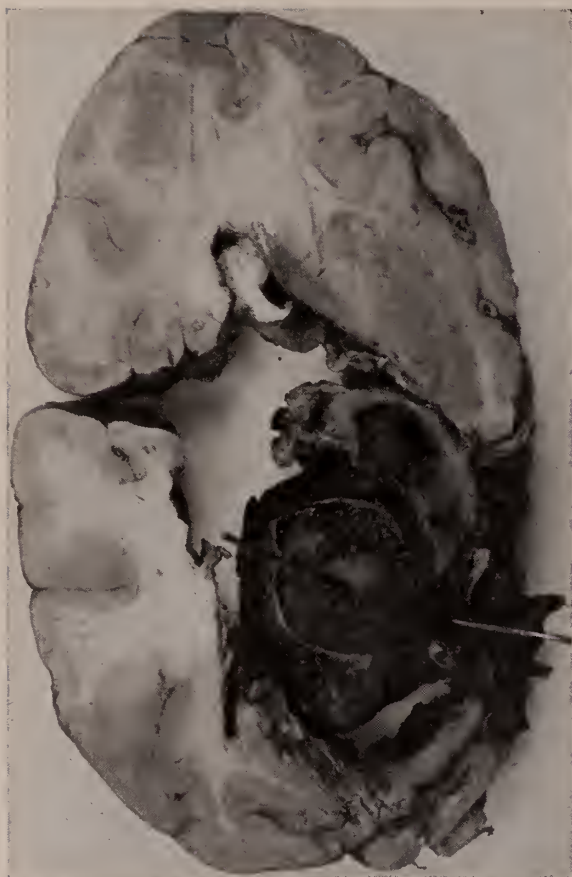
The essential portions of the complete postmortem examination were limited to the head. There were no recent injuries of the superficial and deep tissues of the scalp. The dura covering the left cerebral hemisphere was ossified and ranged to 1 cm. in thickness (Figures 4 and 5); that covering the right hemisphere had scattered plaques of bone. These dural tissues weighed 115 gms. The leptomeninges were adherent to the ossified dura in the left fronto-parietal region.



Case 3. Figure 4. Photograph illustrating the external surface of the ossified dura. Note the grooves for the anterior and posterior divisions of the middle meningeal vessels and the groove of the superior sagittal sulcus.



Case 3. Figure 5. Photograph illustrating the internal surface of the ossified dura.



Case 3. Figure 6. Photograph illustrating the ruptured aneurysm of the left middle cerebral artery. The probe is in the communication between the aneurysm and artery. Note the hemorrhage into the subarachnoid space and basal nuclei.

The cerebrospinal fluid contained blood and there was a large amount of fluid and clotted blood in the subarachnoid space on the inferior surface of the brain about the optic chiasm and upper portion of the brain stem, more on the left side than the right. There was a large spontaneous hemorrhage and laceration of the brain tissues in the left basal ganglia. After formalin fixation a frontal section of the brain at the level and in front of the optic chiasm disclosed a blood clot 5 by 4 cms. which extended through the cortex into the left basal ganglia. In this was a large saccular aneurysm 2.5 cms. in diameter having a communication 3 mms. in diameter with the left middle cerebral artery at a level 1.5 cms. from its origin in the internal carotid artery (Figure 6).

WAR DEPT. RESEARCH (Continued)

in the hands of scientists, and that practically all work is done on contract rather than in War Department establishments — an exception being work requiring ballistics ranges “which do not normally exist in industrial laboratories or educational institutions.”

“Another policy in connection with these contracts for pure research is that they are only made in those fields where the War Department believes that research work should be accelerated in order that we may stay ahead of our competitors. The War Department makes no pure research contracts for the purpose of subsidization of anything. We realize that subsidization, imprisonment of science, or militarization will keep us from getting the basic information which we need. It would be folly for us to so defeat our own ends.”

TRACE SENSITIVITY TO PLAYING CARDS

Certain chemicals which are used in the finish of playing cards may cause a rash due to the hypersensitivity of the person, according to the December 7 issue of *The Journal of the American Medical Association*.

Answering a query on which of these chemicals might produce a contact dermatitis, *The Journal* states:

“The ordinary playing cards are made of paper and stiffened with sizings. Sizings may be any of the natural or synthetic resins or such substances as sodium silicate. Any of the synthetic resins, if they are not completely cured, may cause sensitization dermatitis. Of the natural resins, rosin is the best known sensitizer. Sodium silicate, water-glass, has not been reported as the cause of sensitization dermatitis.

“Within the past few years there have appeared on the market washable playing cards which are made of synthetic plastics. If these are incompletely cured they may cause dermatitis, just as may the synthetic resin sizings. In instances in which the dye comes off the playing cards, it is possible that some one may be sensitive to such dyes.”

Attend Your ANNUAL MEETING, *May 12, 13, 14*

Council Meeting Minutes

The regular January meeting of the Council was held at the Palmer House, Chicago on Sunday, January 5, 1947 with the following present. Berghoff, Neece, Hughes, Hopkins, Hawkinson, Hedge, Harker, Saunders, Blair, Peairs, Stevenson, English, Lane, Otrich, Hamilton, Coleman, Camp, Henry Poncher, John W. Neal, O'Neill, Ann Fox, James C. Leary, Ralph, McReynolds, P. R. Blodget, D. B. Pond, H. K. Scatliff, James H. Hutton, R. R. Cross.

MOTION: (Blair-Neece) that the minutes of the last meeting of the Council be approved as mailed to members. Motion carried.

Report of the Secretary

The secretary read his report outlining the sale of exhibit spaces for the 1947 meeting. During the first three days following receipt of the diagram-application blanks 90 of the 115 booths have been sold by phone, wire and letter. This indicates a sell-out. Firms about which there is some question and who wish to apply for space, will be discussed and passed upon by the advisory committee of which Prather Saunders is the chairman.

An overall addition of 10% on our printing bills for the Journal went into effect on December 1, 1946.

The question of full time employees in hospitals will come up for discussion during the morning. The fact that several hospitals contemplate the use of full time men in various specialties with the hospital commercializing on their work, has been called to our attention by several members. Physicians who practice in this way are subject to discipline by their local societies, and it may be possible to have hospitals engaging in this type of work removed from the approved list for interne and resident training.

The Illinois State Nurses' Association has approved the constitution and by-laws of the Illinois Inter-professional Council and is desirous of becoming a participating organization.

The chairman ruled that the report of the secretary be accepted.

President's Report

Berghoff reported as president stating that he had attended various meetings recently. The committee of which he is a member have been holding meetings: the Educational Committee, the Medical Service and Public Relations Committee, the Scientific Service and

Post Graduate Committees. The latter two are now busy compiling material to publish a handbook of speakers which should be ready for distribution by March. Post Graduate meetings will be held in Joliet on January 22nd, East St. Louis the first Thursday in April, and in Mattoon April 17.

Work on the Benevolence Fund campaign for contributions will be opened by an article in the Journal. Letters will be sent to all members of the society, and it is hoped that many will respond.

The tuberculosis situation in Illinois has been brought before us recently through the committee in Cook County of which Dr. Hutton is now chairman. The survey of the situation shows a condition serious in Cook county and not much better in the downstate area. Work is being done and the Post War Planning Committee expects to have the money to build two downstate sanatoria plus that planned for Cook County.

The hospital survey in Illinois should be finished by August, and instead of a year's job, this has developed into a two year proposition. The material is about ready to be evaluated.

Report of President-Elect

Neece reported as President-Elect stating that he had attended two days of the session of the A.M.A. House of Delegates in December; he stated that the downstate projects seemed to be going well, and that only one unpleasant item had to be reported: In his local society a physician was convicted under the Federal Narcotic Act.

Reports of Councilors

Hamilton: There is a Post Graduate Conference scheduled for Joliet on January 22, 1947.

Peairs: The local health unit in McLean County is well established and there are 16 full time employees there at this time. The unit should be a good one, and work is satisfactory.

English: There will be a meeting in Champaign of the Illinois Farm and Home week, attended by some 1500 farmers and their wives. A debate between John W. Neal and Zeigler on the question of compulsory health insurance has been arranged.

Medical Service and Public Relations

Hutton reported as chairman of the Medical Service and Public Relations Committee.

Doctor Ford K. Hick, at a recent meeting of the Educational Committee, discussed the possibility of the University of Illinois presenting a post-graduate course for men who fail to pass their licensing examination given by the Department of Registration and Education.

It might be wise to have representatives of the Committee on Medical Service and Public Relations present at other committee meetings, or invite other committees to attend meetings with them. The preparation of a handbook for the laity is being considered by the Educational Committee. A summary of past topics prepared for "Do You Know" is being assembled so duplicate material will not be sent out. A two week limit on package library material is to be established so that the material will not be out over too long a period of time. A booth display for the state meeting, for county and state fairs, and for the A.M.A. meeting next June is being contemplated.

Miss Fox discussed the general idea under discussion at this time to be developed for this display. The setup would highlight the county society, the state society, and would tie in the State Health Department and the Medical Examining Board. The display would show the student graduating, passing his state boards and becoming a cog in the wheel of organized medicine with all its various ramifications. The unit would be mobile so that it could be used for display purposes in various places. \$1500.00 should be ample to provide the material and have the work done.

Hutton: The idea at this time is to ask the Council to approve the preparation of this display in principle.

Prepayment Plans

Hopkins reported as chairman of the Committee on Voluntary Prepayment Medical Care Plans stating that the suggested revision had been made and the rewording of the principles recommended by Neal. The new material was sent to all members of the committee. The Northern Trust of Aurora is now writing policies and has several large groups in Peoria lined up to be sold. The material being prepared to present to the A.M.A. for approval will be organized and presented in proper order. Approval for our state plan will be sought from the Associated Medical Care Plans as soon as qualifications are met.

MOTION: (Hopkins-Hamilton) that this portion of the report be adopted. Motion carried.

Veterans Administration

At the last meeting of the Council certain changes were made in the fee schedule and were approved. Certain changes were not approved by the Central Office of the Veterans Administration and their suggested substitute fees are herewith called to your attention:

379a. Rh Factor	\$ 2.00
353. Blood transfusion, not including cost of blood	20.00
353a. Blood transfusion, not including cost of blood, involving exposure of vein	35.00

MOTION: (Hopkins-Hamilton) that these changes be approved and incorporated in the reprinted fee schedule. Motion carried.

MOTION: (Hopkins-Neece) that the report be adopted as a whole. Motion carried.

Journal Report

Hopkins reported as chairman of the Journal Committee stated that no opportunity had presented itself to secure new bids for printing the Journal. The contract with Wayside Press expires in the late summer and information will be secured from other concerns before that time.

MOTION: (Hopkins-Hedge) that the 10% raise in overall prices charged by the Wayside Press be allowed. Motion carried.

Benevolence Report

Hawkinson reported as chairman of the Benevolence Committee stating that the next issue of the Journal would carry an announcement of committee activity, start the ball rolling on the campaign to solicit funds for the Committee, and in the near future, a letter would be sent to every member of the Society dealing with this project, and asking that consideration be given the development of a trust fund, the income from which would care for the needs.

Medical Testimony

Hawkinson also reported that the development of a Committee on Medical Testimony in the state society was a project in which he was most interested. The committee as such has been functioning in the Chicago Medical Society for the past two years, and recognition has been given them by the Bar Association for their interesting work. They were invited to attend a meeting of all Circuit Judges held in Chicago, and the members of the legal profession are becoming cognizant of the committee and its efforts to control medical testimony given in courts of law.

MOTION: (Hawkinson-English) that proper amendments to the Constitution and By-Laws as to provide for such a Committee for the State Society, be presented at the 1947 meeting of the House of Delegates. Motion carried.

Medico-Legal Committee

Then, relative to the Committee on Professional Demeanor, and the motion made in the House of Delegates by Dr. Scatliff which authorized the change of the name back to the Medico-Legal Committee; this Committee has done some work in the Chicago area and very little downstate. Only one or two cases have been called to our attention. However, with the return of the name and the correct interpretation of the title, perhaps more assistance can be given Illinois physicians threatened with malpractice.

I.P.A.C. Report

Coleman reported that the Advisory Committee to the Illinois Public Aid Commission had met and discussed several projects, the first and most important at the present is a general revision of the fee schedule for major surgery upward. These increases which

bring certain major operations (plus reasonable after care) to \$100.00 instead of the former \$50.00 to \$75.00, will go into effect by February 1, 1947. If there is a long siege of after care needed on some particular case, the Committee and the I.P.A.C. will review and consider additional payment on an individual basis. This will apply at present to the downstate only. The situation in Chicago still remains the same, but the I.P.A.C. seems willing to discuss the matter with the representatives of Chicago and definitely is in a receptive mood.

MOTION: (Hopkins-Harker) that the Council invite the C.M.S. to appoint a committee to confer with the state Advisory Committee on the I.P.A.C., and to meet with them to work on this matter. Motion carried.

Rural Health Report

English reported as chairman of the Committee on Rural Health and outlined the work being done at this time. (1) Hospitals to be built in rural areas under the Hill-Burton Bill should be given serious consideration; (2) Physicians are needed in the rural areas, and funds for students from such areas should be available so that they could receive a medical education and return to their "home ground"; (3) Nurses also are needed and there is a definite need for the so-called "practical" nurse. Courses for Nurses Aides should be offered so that these people could care for the chronically ill; (4) Post-graduate training fills an important place in rural medical life, and should be continued and encouraged; (5) Questionnaires: Instead of questioning rural doctors, the committee feels that we should question the future suppliers of medical care in the rural areas as well as the consumers of such care.

Coleman stated that English should be commended for his report and for the work of the committee, which should be continued. Such a report should be called to the attention of the House of Delegates. Otrich: I would suggest that this report be submitted to the Committee on Rural Health Service of the A.M.A. and also to the Department of Public Health.

MOTION: (Hedge-Lane) that the report be sent to the A.M.A. Committee, to the Department of Public Health, members of the Council, and that the expenses of the chairman be paid to attend the A.M.A. National Conference on Rural Health on February 7 and 8. Motion carried.

Department of Public Health

Cross stated that he had little to report. The hospital survey will be straightened out and the differences which exist will be eliminated. The material will be ready to evaluate soon.

The tuberculosis situation referred to by Hutton is one of the serious situations in Illinois. It should be controlled by the Department of Public Health under the Division for Communicable Diseases, and adequate funds should be available for the work. Under the existing laws taxes can be assessed in each county up to 1½ mills; if this is not adequate, state aid could

be given, and such a request has been made to the Governor. State money could go to such counties on the basis of need after the tax has been assessed to the maximum.

In my opinion technicians should be licensed, and this should be done to maintain the standards needed in such work. Also, I would like to have it made mandatory that a health officer be appointed in all township and villages where no such office is in existence.

Hutton discussed the conditions prevalent in Illinois relative to tuberculosis, and the present situation. In one year there were 1200 cases of polio and the public contributed 12 million dollars to combat the disease. In the same year tuberculosis caused 60,000 deaths and the public gave 5 million dollars to fight that disease. In Chicago we don't even know how many cases there are. Our situation is so bad here that if our population remained static and our diagnostic facilities didn't improve it would take 75 years to survey the population. While 15 patients are dying of tuberculosis in Iowa, 45 are dying of the same disease in Illinois. In the last decade or so every state touching Illinois except Kentucky has a better record as regards a decline in mortality rate and in the incidence of the disease than has Illinois. The mortality rate for the nation as a whole has fallen something like 35% over the last 10 to 15 years. In Chicago it has fallen only 10%. Tuberculosis kills a white man in five years and a colored man in three. Five people die every day in Cook County, and approximately the same number downstate.

If the victim of tuberculosis were willing to go to bed where he could get himself cured, at least in the early stage, we have no place to put him. We lack 3,000 beds in Chicago alone, and many hundreds downstate. The states spend on an average nationwide basis about \$309 per year per tuberculosis death; Illinois spends 42c. Among cities of more than 100,000 population, Chicago stands 67th in regard to its efficiency in handling tuberculosis. Nevada and Illinois are the only two states in the Union that do not have state owned and operated tuberculosis sanatoria.

MOTION: (English-Berghoff) that when any county assesses the maximum tax load and is still unable to meet the necessary requirements for care of tubercular patients, that they be given the assistance they need by the state, and that such a program be suggested to the legislative committee for whatever action is necessary. Motion carried.

Committee on Arrangements

H. Kenneth Scatlift, as chairman of the Committee on arrangements stated that the chairmen of the various local committees had been selected. Now the personnel of these committees is being filled in with the help of the Advisory Committee of the Council. The Committee on Arrangements will be composed of Drs. J. J. Moore, Fred Muller, Oscar Hawkinson, J. P. Simonds, Frank Maple, J. H. Hutton, C. H. Phifer, R. H. Hayes, M. T. MacEarchern and H. M. Hedge. Scatlift has been in touch with Van Dellen in order to

coordinate activities, and in a short time a meeting will be held with the Advisory Committee.

MOTION: (Berghoff-Neece) that the report be accepted. Motion carried.

Hospital Situation in Quincy

Stevenson reported that one of the hospitals in Quincy contemplates employing men in the various specialties and branches of medicine. The president of the Illinois Hospital Association is the superintendent of the hospital in question, and plans to place men on a full time salary basis in an outpatient capacity with the ensuing revenue reverting to the hospital. Since this definitely establishes the hospital as "practicing medicine", the situation is becoming acute. The Adams County Society would like to have Council action to concur in the resolution, approved by the A.M.A. House of Delegates in 1934 and reaffirmed in 1936, and incorporated in amendments to the principles of Medical Ethics that same year.

The action on the part of the A.M.A. House was as follows: (as appearing in the Code of Ethics of the A.M.A.):

"It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy."

MOTION: (Neece-Otrich) that the Council concur in the recommendations of the A.M.A. and a copy of this action be sent to the secretary of Adams County. Motion carried.

Poncher's Report — Pediatric Survey

Dr. Henry Poncher, in charge of the survey of child health in Illinois being conducted by the American

Academy of Pediatrics, reported that he appreciated the cooperation given him by the Council and by members of the society throughout the state. At this time he asked for Council approval to establish a pediatric diagnostic clinic as a branch of the University of Illinois, centrally located in the 9th and 10th Districts of the Society in southern Illinois. The results of the Academy survey show this area to be without such service. The branch would be in charge of a man with full professional rank at the University of Illinois, and the station would be of assistance as a training area for rural medical problems. Students from down-state could receive training there which would familiarize them with the situation in this area and also with the problems which arise in rural practice. Both the Councilors, Lane from the Ninth District, and Otrich from the Tenth, have approved the idea. Doctor Otrich stated that the matter met with the approval of many of the county society officers in his District also.

MOTION: (English-Hedge) that the Council approve this proposed plan and that the recommendation be that the branch be centrally located. Motion carried.

MOTION: (Hawkins-Lane) that Rawlins be retained as general counsel for the society for the next year as has been done in the past. Motion carried.

MOTION: (Hamilton-Hedge) that the following members be elected to Emeritus Membership:

J. K. P. Hawks, Bloomington, McLean County
Tully O. Hardesty, Jacksonville, Morgan County
Motion carried.

MOTION: (Coleman-Hughes) that the bills as audited by the Finance Committee be approved. Motion carried.

The Council adjourned at 12:30 p.m.

Respectfully submitted,

HAROLD M. CAMP, M.D., Secretary

By: F.C. Zimmer



A Pictorial Report of a
Post-Graduate Conference
will appear in the
April issue.
Watch for it.

Industrial Health

Committee On Industrial Health — Jos. H. Chivers, Chm., 836 S. Michigan Ave., Chicago 5, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

The following article reprinted from the Mississippi Valley Medical Journal, January 1947, was awarded 3rd prize in the Sixth Annual Essay Contest of the Mississippi Valley Medical Society. Dr. R. T. Johnstone was graduated from the University of Pittsburgh School of Medicine in 1925 and limits his practice to internal medicine in Los Angeles, California.

A BASIC APPROACH TO THE DIAGNOSIS OF THE OCCUPATIONAL DISEASES

RUTHERFORD T. JOHNSTONE, M.D.

LOS ANGELES, CALIFORNIA

"Lack of the systematic personal training in the methods of recognition of disease is apt to place us on the level of empires and quacks" wrote the dean of American medicine at a period when medicine was more art than science. Since Osler's day clinical teaching and scientific implements have elevated diagnosis in general medicine to a level of undeniable proficiency. But this same degree of proficiency is not attained when confronted with an occupational illness. In no other phase of medicine is *empiricism* so prevalent.

It is not difficult to assign reasons why this diagnostic inefficiency exists within the profession at large when dealing with an occupational illness. One reason, of course, is the neglect of this subject in the undergraduate and postgraduate teaching courses. But this is far from being an all sufficient excuse. To an almost equal degree faulty diagnosis is due to the marked indifference manifested by the average physician concerning "the disease of workers" (*De Morbis Artificum*). This attitude probably stems out of the experience of the immedi-

ate past in which only rarely did a patient with an occupational disease cross his doorstep.

Times have changed! It is now inevitable and inescapable that occupational diseases or ellegations of such will present themselves to the general practitioner in increasing incidence. No longer centralized in a few eastern cities, industry has spread to small towns and hamlets across this nation. Even farming is industrialized since the farmer must engage in welding, buffing, or degreasing to maintain his machinery. Since only a few industries employ a plant physician, it is obligatory that every physician be cognizant of and recognize the signs and symptoms of the diseases arising out of man's working environment.

MEDICAL AND OCCUPATIONAL HISTORY

The initial approach to the diagnosis of an occupational disease is not dissimilar to that utilized to diagnose any disease of communal origin, since the noxious industrial substances are capable of affecting any of the internal organs or systems of the body such as the central nervous system, the blood or blood-forming organs, the lungs, kidneys, liver, and occasionally — though rarely — the heart. Not only should the general medical history be meticulously elicited, but the occupational history must include each activity engaged in by the patient since his school days. Unless this history is all inclusive, erroneous assumptions will be frequent.

To illustrate, from a patient whose signs and symptoms suggested asthma, a physician obtained the history that the patient had been a baker for the past four years, and prior to that an apartment house manager. His X-ray films disclosed

moderately diffuse fibrosis of the lungs. In reporting the case to the employer, the physician correctly stated that the workman had an asthma due to a sensitivity to flour dust, but incorrectly stated that the fibrosis was due to the inhalation of this dust. He committed these errors: (1) Flour dust produces no perceptible fibrosis of the pulmonary tissue, and (2) the occupational history was inadequate. Had he delved further into the patient's occupational history he would have found that many years previously the patient had been a gold miner and as such was exposed to free silica, which had produced the fibrosis noted on the X-ray films.

Then there is the case of a workman whose marital status was rendered temporarily stormy when, during his examination it was noted that he had a perforated septum. In the presence of the wife the patient was advised to have a Wasserman test, the intimation being that the perforation might be due to syphilis. The truth was that the perforation had its inception sometime previously when the patient as an electroplater had been exposed to chromic acid, a fairly common cause of nasal perforation.

Nor should a workman's statement of his occupation be accepted as being descriptive of his industrial exposure. Workmen are prone to classify themselves by a title which does not reveal the actual nature of their work. Indeed, they are rarely cognizant of the materials utilized in the processes in which they are engaged. Also, unless a physician is thoroughly acquainted with the various industrial processes, the occupational title of a job may not convey to him the possible hazards existing in any given occupation.

An electroplater, for instance, may be exposed to one or more of some twenty-two chemicals such as arsenic, antimony, benzene, benzol, cadmium, carbon disulfide, carbon tetrachloride, chromium, cyanogen compounds, hydrochloric acid, hydrofluoric acid, sulfuric acid, lead, mercury, and so on. Except for possibly some minor traumatic injury, there exists no hazard in the ordinary operation of a turret lathe. For several years a Los Angeles plant had been operating turret lathes without any apparent harm to the health of the operators. A sudden wave of illness among these workmen puzzled the management until it was pointed out to them that they had introduced a technique for precision work which involved

the use of carbon tetrachloride, the toxic properties of which they were not aware. If one suspected that an illness in a molder or caster was the result of his occupational exposure, he should not concern himself too greatly with the metals for usually these are inert and cause no systemic reaction, but rather he should inquire as to the nature of the flux being used. A welder may be exposed to the fumes of lead, or a combination of metallic oxides (Metal Fume Fever), to nitrous fumes, or to carbon monoxide. The cause of a dermatitis in a pipe fitter was not apparent until it was learned that he had been repairing a leak in a pipe which conveyed acrolein, a known skin irritant.

To assume that a workman has an occupational illness is empiricism; to prove it is a scientific procedure. To do so often requires as much leg work as brain work. He who would learn the cause of occupational ill health must get up off his—er, shall we say—comfortable office chair, cross the tracks, or go across town to the plant to investigate the working environment of his patient. In general medicine, the hospital ward is the class room from whence comes much of our clinical knowledge; in industrial medicine, it *should be the plant*.

As an example of how easy it is to be misinformed, the author, in attempting to determine the cause of an anemia in a patient, telephoned the owner of a small war industry only to be assured that the process in which the workman was engaged used no benzol but rather a petroleum distillate. Not satisfied as to the accuracy of this information, a trip to the plant disclosed that the suspected substance was a so-called thinner bearing a trade number but the label did not disclose the nature of the ingredients. From the manufacturer it was learned that this solvent contained 40 per cent benzol. In this instance the employer had not been aware of the substitution which the superintendent had made several months previously.

Likewise, the failure to obtain accurate knowledge regarding the nature of a patient's exposure will often render treatment useless or even harmful. A physician practicing in the neighborhood of a plastic plant was at loss to explain why some mild cases of dermatitis became aggravated following the application of calomine lotion, and why further aggravation occurred when he

switched to a soothing ointment containing menthol. Had he taken a few minutes from his routine and a few steps to this plant he would have learned that the offending agent in the plastic process was phenol, a coal tar product; having learned this he would not have added insult to injury by prescribing medication also containing coal tar derivatives.

Having secured a good occupational history and having isolated or ferreted out the substance which might possibly be the cause of the ill health in a given case, one must then subject his suspicion to the following type of injury:

1. *Is the suspected substance known to have noxious properties, or is it known to be relatively inert? Is it capable of being absorbed?*

Many substances as they are normally handled in industry are harmless. This truth particularly applies to most metals or alloys as they exist in a so-called "cold state". In such a state cadmium incorporated in an automobile bearing would never cause any harm, but if that bearing was subjected to intense heat and the oxides were liberated, cadmium could not only be toxic but even lethal. This is also true of lead or beryllium. The toxicity of many solvents is increased by heating. With few exceptions the industrial dusts such as textile dust, or dust from flour, wood, feathers, etc., are harmless since they either fail to pass through the protective mechanism of the upper respiratory tract, or if they do so, contain no property capable of producing any pulmonary reaction. It is well known that men exposed to cement dust over a period of twenty or thirty years reveal only minimal, nondisabling fibroses. Yet under the same working conditions such negligible reaction could not be expected of a dust containing free silica. The toxicity of the solvents varies greatly; the toxic potentialities of gasoline cannot be compared with those of benzol.

2. *To what degree can a suspected substance be absorbed? How rapidly may it be eliminated.*

Since industrial intoxication rarely occurs from ingestion or absorption through the skin, these routes will be ignored and attention focused upon the inhalation of gasses or vapors. According to Henderson and Haggard, "There are two obvious general facts in regard to the absorption of any volatile substance through the lungs: (1)

No more of the substance can be absorbed than is taken into the lungs in the air breathed; and (2) absorption ceases when an equilibrium is reached between the amounts in the body and in the air. At the commencement of inhalation of any gas or vapor, that portion which is taken up by the blood is carried in the arterial stream to the capillaries where exchange of the gas or vapor takes place by diffusion between the blood and the tissues. Here, as in the lungs, a nearly complete equilibrium is reached almost instantaneously. The venous blood, therefore, leaves the tissues with a concentration of gas or vapor practically identical with that developed in the tissues through which it has passed. The blood, with a reduced amount of the gas or vapor then returns to the lungs, where it is again brought into equilibrium with the concentration of the gas or vapor in the lungs. As the process continues a state of saturation or equilibrium is reached, at which time all further absorption ceases."

To illustrate the action of the law of saturation the equilibrium, Henderson and Haggard state that the pulmonary ventilation of a man of average size performing work requiring moderate exertion may be taken as 8 liters per minute, or, in round numbers, 4,000 liters in an 8 hour working day. If the air breathed contains 1 mg. per liter of some volatile substance the amount brought to his lungs and hence the maximum amount that can be absorbed, is 4 g. The saturation or equilibrium value for any gas or vapor — that is, the maximum amount that can be absorbed at any concentration — is determined as the product of the weight of the body, the concentration of the gas or vapor in the lungs, and its coefficient of solubility. Assume that a man weighing 70 kg. breathes an atmosphere containing either vapor, the coefficient of solubility of which is 15. The saturation value for such a man breathing an atmosphere containing 1 mg. of ether vapor per liter of air would be 1.05 g. He could not accumulate a greater amount in any length of exposure, no matter how long.

Likewise, elimination follows a similar established law the same as does absorption. At the termination of absorption, elimination begins and part of the air in the lungs is replaced by fresh air, a part of the gas is carried away in the expired air, and the concentration of the gas in the arterial blood leaving the lungs to reach the

tissues is reached below that in the venous blood returning to the lungs. The repetition of this process soon brings about complete elimination. In respect to industrial exposure, the time spent away from work is greater than that spent in being exposed, and this non occupational period is more than adequate to permit complete elimination of a gas or vapor, and consequently none is present in the body at the beginning of the next working period.

The foregoing are the general laws that must apply when considering the factors of absorption and elimination. The rule regarding the accumulation and elimination of vapors or gasses is not applicable to substances whose oxidation products are toxic or to certain reactive substances such as methyl alcohol.

3. *Following an exposure to be given noxious substance, how soon should one expect evidence of an illness?*

With few exceptions, intoxication from an industrial chemical ensues during the period of exposure. Because of the law of elimination, the withdrawal from exposure usually guarantees no subsequent or delayed illness. Silicosis or radium poisoning are notable exceptions. Some reports in the literature suggest the possibility of benzol producing some months or years later an aplastic anemia, a leukemia, or neoplasm, but we need more abundant and reliable confirmation on this point.

Having satisfied himself that the offending agent has been identified and that all of the prerequisites necessary to establish the illness as one of industrial origin have been fulfilled, a physician must then appropriate what organ or system of the body is most likely to be affected. In general medicine the various infections, the dysfunction of certain organs, or the alternation of certain metabolic states produce a fairly constant clinical pattern established by experience, by laboratory findings, and by pathological studies. A similar foundation of facts exists in industrial toxicology. Experience has taught us that from an undue exposure to give industrial substances we can expect a typical reaction. Any variation from the usual picture should induce doubt regarding the occupational origin of the illness.

An acute or undue exposure to vapors or gasses invariably affects the central nervous system.

While the degree of intoxication may vary, the duration is usually short and rarely are there any sequelae. An acute intoxication from a few industrial solvents may, if severe, affect several systems. The initial effect from carbon tetrachloride may be to the central nervous system, to be followed soon by nephritis or hepatitis.

In chronic exposure, on the other hand, the central nervous system often escapes involvement but the blood-forming organs are injured; or possibly the peripheral nervous system. It is impossible in this space to detail the individual reactions, but suffice it to state that each substance has its characteristic action with which the physician should acquaint himself.

Obviously then, this predilection of a given chemical for a certain organ of the body suggests where the major emphasis should be placed in the physical examination. But pathological lesions elsewhere caused by this same substance may be missed unless the physical examination is most complete. In carbon tetrachloride poisoning if the investigation was confined to the liver or kidneys and did not consider the fundi or visual fields, amblyopia might not be detected if this infrequent condition were present. A negro who had been dipping small metal parts into a tank of trichlorethylene for eight hours without adequate protection was taken to a physician for treatment of chemical burns of his hands. These were treated and he was discharged to go home without further examination. One-half hour later he was found in a stuporous condition and was arrested for being drunk. His intoxication, however, was due to trichlorethylene, not to alcohol. His physician should have examined him for the possibility of central nervous system irritation.

Blood Examinations

An intelligent laboratory investigation is likewise pursued only if one appreciates the type of systemic reaction which is apt to occur following intoxication from a specific agent. A complete blood count should be done routinely on all patients who have had an exposure, either acute or chronic, to any of the industrial solvents or metals. Here is a great unexplored field which as yet has not attracted sufficient attention by our leading hematologists. It is regrettable that in this paper the author cannot indulge in more detailed consideration of the effect certain indus-

trial agents have upon the blood picture or of the variations which are possible. We know, for instance, that lead when absorbed in sufficient amounts produces a fairly constant type of blood change. In contrast, benzol is capable of causing an anemia which defies standardization.

When the blood is affected by the various industrial chemicals, anemia is the usual result but an erythrocytosis may be seen in the very early stages of some intoxications. Certain investigators have noted an increase in the red cells in early poisoning from benzol, hydrogen sulfide, sulfur dioxide, nitrogen dioxide, the aromatic hydrocarbons, and a few of the metals. This may be true, but most of us do not see these cases until anemia has set in. The length of exposure, the susceptibility of the workman, and the nature of the agent are all factors in the production of the anemia. Most industrial agents produce a hemolytic type of anemia and we find mentioned in this list methyl chloride, colloidal silver, arseniureted hydrogen, tritnitrotoluene, dinitro-benzol, anilin, amido and nitro compounds of phenol, benzol, poisonous resins, lead, and a few others. There is a tendency on the part of many physicians to attribute anemia to a certain type of exposure, when actually the cause of the anemia may be of unrelated origin. As previously stated, we need more authentic study on this subject.

Leukopenia may be seen in the early stages of benzol poisoning, but it is no longer considered as diagnostic. Radioactive substances likewise affect the white cells, causing a relative lymphocytosis, often to the degree that the normal leucocyte lymphocyte ratio is reversed.

Blood chemistry studies are of value in the study of industrial intoxication. The estimation of lead in the whole blood, especially when combined with estimations of the amount of lead in the urine, serves as significant evidence in medicolegal cases. Since the chlorinated hydrocarbons and the chlorinated naphthalenes may affect the kidneys, liver, or both, estimations of non-protein nitrogen, urea creatine, or bile are important procedures.

Urine

In a few instances of industrial intoxication, the urine is a source of confirmatory evidence. The recovery of lead from the urine is well recognized, as is also that of arsenic. The urine

suplyate ratio is of aid in the diagnosis of benzol poisoning, providing it is estimated while the worker is still exposed. The sulphates are conjugated in poisoning by phenol, creosote, and analine.

X-Ray Examinations

The primary importance of the x-ray films in occupational medicine lies in their negative rather than their positive findings. While the majority of industrial toxicants enter the body by inhalation, very few of them leave their footprints upon the pulmonary tissue. It is common for workmen to believe that various exposures have affected their lungs. To dogmatically inform them that the alleged offending agent could not harm the pulmonary tissue is not sufficient. The layman has unlimited faith in the positiveness of the x-ray. If a film reveals no harmful effects they are usually satisfied. Unfortunately, however, x-ray films frequently induce errors in diagnoses. It is pitiful what can be read into pictures of the lungs by an inexperienced physician. A few scattered, calcified nodules are too often interpreted as evidence of a "dust disease", or the pigmentation deposits from such material as inert iron is misconstrued as nodulation due to silica.

X-ray pictures will show necrosis of bone due to phosphorus, sclerosis of bones in fluoride poisoning, and osteoporotic changes due to radium.

Additional laboratory studies are to be utilized in specific instances. Biopsy is of value in studying bone marrow changes due to benzol poisoning; patch testing is used in certain allergic states; bacteriologic and serum agglutination tests are to be restored to in undulant fever, glanders, and anthrax, all of which may be due to occupational exposure. The routine examination of radon in expired air in radium workers is an important procedure. Vital capacity tests and cardiac function tests have been employed in the attempt to estimate the degree of disability in the silicotic.

Plant Data

It is not expected of the average physician, even the average industrial physician, that he have training in industrial hygiene or engineering. It is not expected of him that he is able to use the various apparatus employed to collect dusts or measure the concentration of vapors or

gases. For such specific determinations he has recourse to the Industrial Hygiene Division of the United States Public Health Service or to a number of lay organizations capable of making industrial hygiene surveys. But from his own personal experience the writer can testify that the average physician can learn the primary principles of industrial hygiene. This self-education combines instructive reading with what Bloomfield calls "the reconnaissance survey". Such a survey teaches the advantages of local exhaust systems or of proper individual protective equipment, or of need to isolate certain processes. This knowledge adds to one's clinical acumen.

It cannot be too strongly emphasized that the neophyte in industrial medicine critically analyze all opinions as they exist in the literature and that he carefully weigh the authority of the writer. The occasional case report or the published decision of the court in a medico-legal controversy are frequently devoid of specific evidence or conclusions. This is especially true of the statements found in the literature as it comes to us from continental Europe. The conclusions reached by the writers from these countries constantly amaze us and very frequently do not conform to American experience.

In America, the most damnable influence tending to create confusion and to distort or destroy established occupational disease entitles arises out of the medico-legal controversy. An award for compensation or a denial of a claim is frequently based upon medical testimony unbelievably ludicrous. In such instances the refer-

ees of our Industrial Accident Commissions are not usually at fault. In California where the writer is familiar with the circumstances, the referees are conscientious attorneys, graduates of law school, who must have practiced law for three years and must pass an examination to qualify them for the position of a referee. Their awards are based upon the medical testimony submitted to them. It is inevitable that when the medical testimony conflicts, inequitable decisions are certain to be made. Although it is felt certain that our referees may be censored for not always considering the quality of the medical testimony or the experience of the medical witness, much of the fault lies in the inadequate training of the medical profession regarding industrial health. From an untutored profession stems baseless opinion.

Summary

In summary, this paper laments the unjustifiable prevalence of empiricism indulged in by the medical profession when confronted with the diagnosis of a disease apt to arise out of or be due to an industrial environment. It urges that the diagnostic approach to an occupational disease be on a rational and scientific basis. The manner of approach has been described. One fundamental aspect of this approach is the appreciation of the fact that under given conditions as industrial substance has a selective action upon a certain organ or system of the body. The supplementary table illustrate this predilection and should serve to make this paper of practical application for the inexperienced physician.

AROMATIC or BENZENE SERIES

1. Aromatic Hydrocarbons

Benzol (benzene, toluene, zylene)

Phenol

2. Aromatic Amines

3. Aromatic Nitro Compounds

Nitrobenzene

Nitrotoluene

Trinitro toluene

Tetryl

Acute exposure — CNS depressant — narcotic.
Chronic exposure—marked and varied effect on blood and blood-forming organs.

Skin irritant and corrosive. Marked absorption toxic to CNS. Kidneys.

CNS irritant, kidneys.

Bladder tumors?

CNS depressant. Cyanosis.

Anemia.

TNT is a skin irritant.

Blood changes (controversal picture).

4. Naphthalene Derivatives

Naphthalene

Mild narcotic action.

Prolonged exposure affects the eyes.

5. Halogens and Halogen Compounds

Bromine, chlorine, iodine

Hydrogen fluoride

Hydrogen sulfide

Eyes and respiratory tract.

Irritant, gastro-intestinal disturbance, disturbance of calcium metabolism.

Cell and nerve poisoning. Paralysis of respiratory center.

Nitro derivatives

Nitrogen dioxide

Respiratory irritant, pulmonary edema. Methemoglobinemia. Immediate or delayed death.

METALS AND ALLOYS

Toxic Effects

1. Zinc

Exposure to zinc alone rarely toxic.

2. Copper

Exposure to copper alone not toxic.

3. Brass (zinc and copper alloy)

Chills, fever, leucocytosis, headache lassitude, weakness (Mental Fume Fever). Duration few days. If lead is added in alloying, illness may be more serious and characterized by symptoms and signs of lead intoxication.

4. Lead

Mild intoxication — lassitude, headache, constipation, intestinal colic, mild anemia. Moderate to severe — above signs and symptoms intensified, anemia more pronounced, colic more persistent. Wrist drop or encephalitis rare.

5. Arsenic

Skin — exfoliation, ulcers of skin and mucous membranes, loss of hair, nails; nausea, vomiting, abdominal cramps, muscular weakness, peripheral neuritis.

6. Mercury

Stomatitis, gingivitis, loose teeth, muscular tremors, psychic and mental changes.

7. Manganese

A neural poisoning. Stolid, mask-like facies, monotonous voice, languor, apathy, increased tendon reflexes, retro-and propulsion, slapping gait.

8. Cadmium

Headache, dizziness, dry throat, cough are initial symptoms. Delayed symptoms are constriction and pain in chest, marked dyspnea. May be fatal (chemical pneumonia).

9. Magnesium

Not-toxic. Subcutaneous splinters cause gas tumors and necrosis.

10. Beryllium

Non-productive cough, occasionally blood tinged sputum, dyspnea. On x-ray, diffuse bilateral haziness (chemical pneumonia).

THE SOLVENTS
Aliphatic or Petroleum Series
(A Partial List)

	Toxic Effects
1. The Alcohols Methyl, esyl, propyl, butyl, amyl	C. N. S. Mild to severe. Optic neuritis or atrophy. Higher alcohols per se <i>not dangerous</i> .
2. Aceates Methyl, ethyl, amyl, butyl (Methyl ethylene glycol acetate) (Ethyl ethylene glycol acetate)	Rarely cause any trouble. Could be respiratory irritants or mild CNS irritant.
3. Acetones: Ketones Acetone (dimethylketone) Methylethyl ketone (butanone) Methlypropyl ketone (pentanone)	Questionable but possible CNS depressant.
4. Aldehydes Formaldehyde, paraldehyde, acrolein	Irritant to eyes, throat, nasal passages, skin Higher concentrations — headache, dizziness, tightness of chest.
5. Glycols Ethylene glycol monoethyl ether (cellosolve) Ethylene glycol monoethyl (methyl cellosolve)	Controversial observations. Anemia, irritant to CNS.
6. Aliphatic Oxides Oxidation of aliphatic acids yield carbon monoxide and carbon dioxide Phosgene — formed from carbon monoxide and chlorine.	Asphyxiant Mild — headache, drowsiness. Moderate — coma. Severe — coma, death.
7. Aliphatic Nitrites HCN	Asphyxiant Coma — death
8. The Chlorinated Hydrocarbons A. Saturated Compounds	Most of these have CNS effects of varying degrees from acute exposure. Some affect kidneys, liver (carbon tetrachloride). Few affect the skin (trichlorethylene, chlorinated naphthalenes) or eyes. Controversial blood effects.
Common Name	
Chemical Name	
Methyl chloride	
Monochlormethane	
Carbon tetrachloride	
Tetrachlormethane	
Ethylene dichloride	
Dichlorethane	
Ethylene trichloride	
Trichlorethane	
Acetylene tetrachloride	
Tetrachlorethane	
B. Unsaturated Compounds	
Acetylene dichloride	
Dichlorethylene	
Acetylene trichloride	
Trichlorethylene	
Tetrachlorethylene	
Tetrachlorethylene	
Halowax	
Chlorinated naphthalenes	
9. Aliphatic Sulfur Compound Carbon Disulfide	Marked, varied, and bizarre CNS lesions.
10. Bromine Compounds of the hydro-carbons Methyl bromide, ethyl bromide	Irritation to respiratory tract. Mild to severe CNS disturbance — invariably not permanent.
11. Mixed Hydrocarbon Gasoline (Benzine)	Rarely source of trouble. Headache, dizziness (naphtha jag).

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

CHAMPAIGN COUNTY

Dr. Sale Honored.—Dr. Leslie O. Sale, Fisher, was honored during a meeting of the Champaign County Medical Society in Urbana, December 11, when he was made a member of the Fifty Year Club of the Illinois State Medical Society. Presentation of the pin signifying the honor was made by Dr. Harlan English, Danville, councilor of the Eighth District. Dr. Sale graduated at Northwestern University Medical School in 1896. During the meeting Dr. Willard L. Veirs, Urbana, was elected president of the county medical society, Dr. James D. McKinney, Champaign, vice president, and Dr. Cesare Gianturco, Urbana, secretary-treasurer. Dr. William H. Schowengardt, Champaign, was named delegate to the annual session of the state medical society.

COOK COUNTY

Activities of Institute of Medicine.—Dr. Joseph L. Baer was recently elected president of the Institute of Medicine of Chicago. Other officers are Drs. William H. Welker, vice president, George H. Coleman, secretary, and Grant H. Laing, treasurer. Dr. William F. Petersen is chairman of the board of governors. Dr. Baer and Drs. Warren H. Cole and LeRoy H. Sloan were elected governors for terms of five years. Drs. Stanley Gibson and J. Roscoe Miller, dean, Northwestern University Medical School, were elected to the unexpired terms of Drs. Ludvig Hektoen and James B. Herrick, who because of age have resigned as members of the board after thirty-one years of continuous and exceptional service.

Lectureship Named for Henry Irish.—Dr. Tom D. Spies, University of Cincinnati College of Medicine, Cincinnati, will deliver the first annual Henry E. Irish Lectureship at the University of Illinois School of Medicine, Chicago, April 18, at 5 p.m., in Room 221. His subject will be "Modern Research in Nutrition." The lectureship is sponsored by Eta Chapter of Alpha Kappa Kappa medical fraternity

in honor of the late Dr. Henry E. Irish, a former professor of the University of Illinois College of Medicine and a member of the fraternity. The lectureship will be followed by the annual Tri-Chapter banquet of the three Chicago chapters of the fraternity, at which Dr. Spies will be guest of honor, and Dr. Andrew C. Ivy, vice president, Chicago Colleges, University of Illinois, the principal speaker.

James Callahan Honored.—The Legion of Merit was recently awarded to Lieut. Col. James J. Callahan, M.C., A.U.S., Oak Park, who, as consultant in orthopedic surgery, Fourth Service Command, from June 1944 to August 1945, performed a diversity of tasks. The citation referred especially to the fact that in the face of unprecedented expansion of orthopedic service within the command he formulated and carried into effect the entire program, simultaneously maintaining an exceptionally high standard of treatment for thousands of orthopedic cases. He organized, staffed and secured supplies for brace shops at all general and regional hospitals and supervised training of orthopedic mechanics. He guided experimental work on combat boots at Fort Benning, Georgia, and his services were of inestimable value in determining the correct type of combat boot to be worn by the foot soldier. Dr. Callahan graduated at Loyola University School of Medicine, Chicago, in 1928.

Mayor Heads Ten Million Drive for Mercy Hospital.—Mayor Edward J. Kelly is general chairman of a campaign to raise \$10,000,000 to finance a building program for Mercy Hospital, Chicago. In a statement to the press, Dr. Robert S. Berghoff, president of the staff of Mercy Hospital, said the drive for funds would start April 1 when the mayor returns from Palm Springs, Florida. Dr. Berghoff pointed out that the proposed twenty-two structure calls for 1,000 beds. To be erected on a site at Erie and St. Clair streets, the hospital will be developed into one of the greatest research institu-

tions of its kind in this part of the country. The project will include an eye-bank to cost \$100,000 and which will make available corneas for transplanting on blind human beings throughout the country. It will also include a large orthopedic wing of at least 200 beds where treatment and research on poliomyelitis and cancer will be emphasized. Sister Mary Theresa is director of Mercy Hospital.

Housing Project for Medical Staff.—Creation of a two-block "garden cottage" project on Ashland Boulevard, near the Chicago Medical Center on the west side of the city, was proposed January 21 by Dr. Walter H. Theobald, president of the Medical Center Commission. The object would be to provide housing as soon as possible for doctors, nurses and employees of the institutions comprising the medical center. The Medical Center Commission was created to develop a 70-block district on the West Side into a center of medical research, treatment and education.

Tuberculosis Group Takes New Name.—The Chicago-Cook County Committee for the Eradication of Tuberculosis is the new name of the recently formed citizens' group for tuberculosis control. Offices for the organization, which is designed to enlist support for legislative and administrative action to increase facilities for treatment of tuberculosis, are located in the headquarters of the Tuberculosis Institute of Chicago and Cook County, 343 South Dearborn Street.

Mark Goldstine Honored.—A bronze plaque was unveiled during the special ceremonies in the Wesley Memorial Hospital, January 25, to honor the many years of service of Dr. Mark T. Goldstine to the hospital. The physician, who graduated at Rush Medical College in 1900, joined the staff of the Wesley Hospital in 1902, serving as assistant in obstetrics and gynecology. He was chairman of the department from 1912 to 1944 when he became chairman emeritus. Dr. Goldstine is also professor emeritus of obstetrics and gynecology at Northwestern University Medical School, having been affiliated with the school since 1911.

Victor Johnson Goes to Mayo Foundation.—Dr. Victor Johnson, professorial lecturer in physiology, University of Chicago School of Medicine and since 1943 Secretary of the Council on Medical Education and Hospitals of the American Medical Association, has resigned to become director of the Mayo Foundation for Medical Education and Research. He succeeds Dr. Donald C. Balfour who will continue as director emeritus and professor of surgery in the Graduate School of the University of Minnesota School of Medicine. Dr. Johnson will join the staff of the Mayo Foundation as professor of physiology, effective April 1, and will become director of the Foundation in October. Dr. Johnson graduated at the University of Chicago School of Medicine in 1939. He will continue as a member of the Council on Medical Education and Hospitals, having re-

cently been elected to succeed Dr. Ray Lyman Wilbur.

Society News.—Dr. Alvan L. Barach, New York, addressed a meeting of the Chicago Tuberculosis Society and the Tuberculosis Institute of Chicago and Cook County, January 31, on "Physiologic Therapy in Respiratory Disease with Special Reference to Recent Developments in the Treatment of Pulmonary Tuberculosis and Pulmonary Emphysema." The discussion was carried on by Drs. John S. Gray, professor of physiology, Northwestern University Medical School, and Dr. Andrew C. Ivy, Vice President, Chicago Professional Colleges, University of Illinois. — Dr. John P. O'Neil, Second Vice President of the Illinois State Medical Society, Chicago, was the principal speaker at the fifty-first annual meeting of the Norwegian Old People's Home, Norwood Park, January 17. The title of his address was "The Sunset of Life and Its Relation to Chronic Illness."

Hospital News.—Passavant Memorial Hospital recently received a check for \$25,000, the amount representing the first night's receipts of the 1947 Hollywood Ice Review at the Chicago Stadium.

Personal.—Albert Milzer, Ph.D., formerly research virologist of the Samuel Deauch Serum Center, Chicago, has been named director of the department of bacteriology, Michael Reese Hospital, Chicago, to succeed Dr. Katharine M. Howell, who retired Dec. 31, 1946.—Dr. Ernest Klein, who was recently released from military service, has returned to his position as psychiatrist on the staff of the Chicago State Hospital.—Dr. Carl A. Starck, Palatine, has purchased the Kunze Building and expanded his offices.—Dr. James L. Hall, formerly a member of the staff of the Chicago Free Dispensary and Provident Hospital, has resigned as superintendent of the Freedman's Hospital, Washington, D. C., to return to private practice in Chicago.—Dr. Karl Singer, formerly of Boston, has been appointed a member of the staff of the hematology laboratories of Michael Reese Hospital, newspapers reported January 26.—Mr. Fred A. Hertwig on January 2 became warden of the Cook County Hospital, Chicago, succeeding Gen. Manus McCloskey. William N. Erickson, president of the county board, and Dr. Karl A. Meyer, medical superintendent of county institutions, were, among others, present at the installation ceremony. Mr. Hertwig was for many years manager of a hotel in Evanston.

Symposium on Medicolegal Problems. — February 4 marked the opening of a series of lectures on medicolegal problems at the Chicago Bar Association, 29 South La Salle Street, Chicago, under the co-sponsorship of the Institute of Medicine of Chicago, the Chicago Medical Society and the Chicago Bar Association. The series is as follows:

February 4: PSYCHIATRY AND THE CIVIL LAW

Presiding: James F. Oates Jr., President of the Chicago bar

Medical Presentation: Frances J. Gerty M.D., Professor of Psychiatry and Head of the Department, University of Illinois College of Medicine.

Legal Presentation: Honorable Harry M. Fisher, Judge of the Circuit Court of Cook County

February 11: PSYCHIATRY AND THE CRIMINAL LAW

Presiding: George F. Lull, M.D., Secretary and General Manager, American Medical Association

Medical Presentation: Paul L. Schroeder M.D., Professor of Criminology and Head of the Institute for Juvenile Research, University of Illinois College of Medicine

Legal Presentation: Wilbert F. Crowley, Esq., First Assistant State's Attorney, Cook County, Illinois

February 18: THE SKELETON SPEAKS MEDICOLEGAL IMPLICATIONS

Presiding: Werner W. Schroeder, Esq., of the Chicago Bar

Medical Presentation: Wilton M. Krogman, Ph.D., Associate Professor of Physical Anthropology, University of Chicago

Legal Presentation: A. R. Peterson, Esq., of the Chicago Bar

February 25: FEDERAL CONTROL OF DRUGS AND COSMETICS

Presiding: Anton J. Carlson, M.D., Frank P. Hixon Distinguished Service Professor Emeritus of Physiology, University of Chicago

Medical Presentation: Morris Fishbein, M.D., Editor, The Journal of the American Medical Association

Legal Presentation: Alvin M. Loverbud, Counsel, Food and Drug Division, Federal Security Agency, Washington, D. C.

March 4: RADIATION HAZARDS AND HEALTH PROTECTION RADIOACTIVE RESEARCH

Presiding: Royal W. Irwin, Esq., of the Chicago Bar

Medical presentation: Austin M. Brues, M.D., Professor of Medicine, University of Chicago

Legal Presentation: Augustine J. Bowe, Esq., of the Chicago Bar

DE KALB COUNTY

Society Election.—Dr. John W. Ovitz, Sycamore, was elected president of the De Kalb County Medical Society at its meeting in Sycamore in December, Dr. Paul W. Carney, De Kalb, vice president, and Dr. Grant Suttie, De Kalb, secretary. Dr. Carl E. Clark, Sycamore, was named delegate to the annual meeting of the Illinois State Medical Society in May.

DU PAGE

Society News.—Dr. Margaret Scannell, Chicago discussed "Acute Rheumatic Fever in Children" at a dinner meeting of the Du Page County Medical Society at the Elmhurst Hospital, Elmhurst, February 19.

EFFINGHAM COUNTY

New Officers.—Dr. Peter C. Rumore was recently elected president of the Effingham County Medical Society to succeed Dr. G. R. Marshall, Effingham. Dr. Elijah S. Frazier, Effingham, was named vice president and Dr. William J. Gillesby, Effingham, secretary-treasurer.

JO DAVIESS COUNTY

Personal.—Dr. J. Eric Gustafson, Stockton, was elected president of the Jo Daviess County Tuberculosis Association at its annual meeting in Galena recently. Drs. George C. McGinnis, Warren, and Ray E. Logan, Galena, are among members of the executive committee; Dr. Gustafson was also named a member of the board of directors.

KANE COUNTY

Secretary Elevated to Presidency.—Dr. Krikore M. Manougian, who has served the Kane County Medical Society fifteen years as secretary, was chosen president of the Society at its meeting December 12 in Elgin. Dr. Clarence O. Heimdal was named vice president and Dr. Andrew J. Zmugg secretary-treasurer. Dr. Edward H. Weld, Rockford, past president of the Illinois State Medical Society, was a guest at the meeting.

Personal.—Dr. Emil K. Mosny Chicago is the new physician at St. Charles Training School. He graduated at Loyola University School of Medicine, Chicago, in 1937.—Dr. Ruth Besier, who has served as instructor in pathology at the University of Illinois College of Medicine and instructor in psychiatry and pathology at the Langley Porter Clinic, University of California Medical School, San Francisco, has been named resident in psychiatry at the Elgin State Hospital. Dr. Paul Jenkins, Goshen, Ind., and recently released from service in the army, has been appointed physician on the state hospital staff.

Memorial to Charles Read.—The establishment of the Charles F. Read Memorial Fund has been announced to finance the cost of commissioning an artist to do a portrait of the late Dr. Charles F. Read who from 1930 to his death, March 11, 1946, served as managing officer of the Elgin State Hospital. According to the Welfare Bulletin of the Illinois Department of Public Welfare, the hospital's diagnostic building is to be renamed the "Charles F. Read Diagnostic Center" and his portrait is to be placed in the entrance lobby. A bronze plaque will also be placed on the building. The memorial stemmed from the wish of friends and associates of Dr. Read to commemorate his services to the state. Dr. Read, who had been a past president of the

Chicago Neurological Society and the Illinois Psychiatric Society, also served as state alienist from 1921 to 1925. Anyone wishing to contribute to the memorial fund should communicate with Charles H. Peeler, chief clerk, Elgin State Hospital, who is serving as treasurer of the fund.

KNOX COUNTY

Personal.—Dr. Frank Marion Huff announces the opening of his office at 521 Bondi Building, Galesburg. His practice is limited to urology.

LIVINGSTON COUNTY

President Addresses County Group.—Dr. Robert S. Berghoff, Chicago, of the Illinois State Medical Society, discussed activities of the state society in a preliminary address to his talk on "Coronary Disease" at a meeting of the Livingston County Medical Society in January. Among the discussors were Drs. Edgar M. Stevenson, Bloomington, M. H. Fineberg, clinical director at the Veterans Administration, Dwight, Frank Deneen, Bloomington, and W. A. Kanapel, Dwight. Dr. Edward F. Joss, Dwight, was named as chairman of the county medical society's cancer committee to represent the society in the organization of a county cancer unit.

MACON COUNTY

Society News.—Dr. Drew W. Luten, associate professor of clinical medicine, Washington University School of Medicine, St. Louis, discussed "The Clinical Course of Coronary Disease" before the Macon County Medical Society in Decatur, January 28.

Installation of President Delayed.—Due to highway conditions and an automobile beyond his control, Dr. Forrest Martin was unable to attend his inauguration as president of the Macon County Medical Society at its first 1947 meeting, January 3, at the Decatur Club. According to the Macon County Medical Society *Bulletin*, President-Elect Fred Ferguson was also unavoidably detained and the chair was retained by Retiring President Stanton G. Smith.

PEORIA COUNTY

New Tuberculosis Superintendent.—Dr. George D. Morse, formerly of Columbus, Ohio, has been named medical director and superintendent of the Peoria Municipal Tuberculosis Sanitarium. He succeeds Dr. Maxim Pollak who recently resigned to engage in private practice. With new offices at 735 Jefferson Building, Peoria 2, Dr. Pollak's practice is limited to diseases of the chest.

Society News.—Dr. Willis J. Potts, chief of surgery, Children's Memorial Hospital, Chicago, discussed "Surgery of Congenital Heart Lesions" before the Peoria Medical Society, January 21.

ROCK ISLAND COUNTY

New Officers.—Dr. Joseph K. Hanson, Moline, was elected president of the Rock Island County Medical Society at a meeting in Moline, December

10, succeeding Dr. Roland O. Sala, Rock Island. Other officers include Drs. Elliott F. Parker, Moline, and Robert B. Collins, Rock Island, vice presidents; Joseph G. Gustafson, Moline, secretary, and Phebe L. Pearsall-Block, Moline, treasurer.

ST. CLAIR COUNTY

Hospital News.—Dr. Walter C. Wilhelmj, East St. Louis, was elected chief of staff of St. Mary's Hospital at the staff's twenty-fifth anniversary meeting, December 16. Dr. John F. Brennan, East St. Louis is secretary.

Society Chooses New Officers.—Dr. Herbert P. Dexheimer, O'Fallon, was chosen president-elect of the Belleville branch of the St. Clair County Medical Society at its meeting in December. Dr. Cecil L. Martin, Belleville, is the new president. Other officers include Drs. Rudolph C. Heiligenstein and Howard L. Lange, both of Belleville, vice president and treasurer, respectively. Dr. Edward G. Dewein, Freeburg, was named a member of the board of censors of the Belleville branch. Dr. Irvin W. Davis was elected secretary to succeed Dr. Grover C. Otrich who declined being reelected to a position he had held for twenty-three years.

WHITESIDE COUNTY

Clinic for Physically Handicapped Children.—Sixty-one patients attended the clinic for physically handicapped children at the Public Hospital, Sterling, January 15. According to press reports, this was the largest clinic ever held in Sterling. The clinic was conducted by local physicians and nurses.

WILL-GRUNDY COUNTY

Society News.—"Present Day Management of the Septic Types of Meningitis" was the title of an address by Dr. Harry Leichenger, Chicago, before the Will-Grundy County Medical Society in Joliet, February 27.

WINNEBAGO

Proposed Mental Hygiene Clinic.—Members of the Winnebago County Medical Society on January 10 endorsed a plan for establishment of a mental hygiene clinic in Rockford. The Rockford *Star* said the society had appropriated an undisclosed sum of money for the project. At the meeting Dr. Paul E. Dee, Rockford, gave an illustrated talk on "Traumatic Surgery of the Hip Joint."

GENERAL

Personal.—Dr. Edward A. Oliver, professor of dermatology, Northwestern University Medical School, Chicago, was recently elected president of the American Academy of Dermatology and Syphilology.—Dr. John I. Brewer, Chicago, is secretary-treasurer of the Central Association of Obstetricians and Gynecologists.

Released from Service.—Physicians recently released from military service include the following: Lowell E. Kannapel, Peoria; John A. Raich, Dwight; James T. Rankin, Rockford; Gregory J. White, Oak Park; and Peter Vanikiotis and Harold E. Young, Jr., both of Chicago.

Trudeau Society Chooses New Officers.—Dr. Charles Petter, medical director of the Lake County Tuberculosis Sanatorium, was installed as president of the Illinois Trudeau Society at its annual meeting recently, succeeding Dr. David F. Loewen, Decatur. Other officers include Drs. Kenneth Bulley, Aurora, president-elect; Arthur Webb, Glen Ellyn, vice president, and L. L. Collins, Edwardsville. Dr. George C. Turner, Chicago, and Dr. Loewen were elected to the executive committee.

Cancer Symposium.—Thirty-four physicians, representing various county medical societies in downstate Illinois attended a symposium on cancer, January 20-24, held under the auspices of the Illinois Division of the American Cancer Society. Lectures, conferences and clinics were held at the University of Illinois, University of Chicago, Northwestern University, Loyola University, Michael Reese and Mercy hospitals. The symposium was part of the program of professional education sponsored by the American Cancer Society and was arranged by Drs. Warren H. Cole, University of Illinois College of Medicine; Alexander Brunschwig, University of Chicago School of Medicine; Loyal Davis, Northwestern University Medical School; Herbert E. Schmitz, Loyola University School of Medicine, and John A. Rogers, executive director of the Illinois Division of the American Cancer Society. At one dinner session in the Illini Union the speakers were Mr. Bertram J. Cahn, president and chairman, board of directors, Illinois Division, American Cancer Society, and Dr. Harold M. Camp, secretary, Illinois State Medical Society. Another dinner session at Mercy Hospital was addressed by Drs. Eric Uhlmann, director, Tumor Clinic, Mercy Hospital, Dr. George F. Lull, Secretary and General Manager, American Medical Association, and Dr. Schmitz.

Obstetricians and Gynecologists Form Society.—As part of the activity of the Maternal Welfare Committee of the Illinois State Medical Society, it was thought desirable to form an Obstetrical and Gynecological Society devoted particularly to the interest of the men in the down state area whose chief interest lay in these specialities. A preliminary meeting was held in St. Louis in September but the organization meeting was held in Springfield January 12. Men who had indicated their interest in the formation of such a Society were invited by members of the Maternal Welfare Committee from the various Councilor districts. Approximately 10 men from each district were invited.

At this meeting a Constitution and By-laws were adopted and various committees were appointed to complete the organization of the Society. The next meeting is planned for May 11 in Chicago which is the Sunday preceeding the state meeting.

It is hoped that this Society will provide a forum for the discussion of problems of maternal welfare, and promote better fellowship and co-operation be-

tween the members of the Medical Society who are devoting most of their time to the solution of these problems.

Officers chosen at the January meeting include Dr. Frederick H. Falls, Chicago, president and Gilbert H. Edwards, Pinckneyville, secretary.

Postwar "Flu" Epidemic Anticipated.—A postwar "flu" epidemic, similar to the one that followed World War I, was anticipated by Dr. Edward A. Piszczek, director of the Cook County Department of Health in a statement to the press, February 3. Pointing out that a dry fall and mild winter may have forestalled the epidemic this year, Dr. Piszczek said it was the opinion of public health officials that a reoccurrence of the 1918-1919 outbreak was inevitable. Indications are, however, that the next "flu" epidemic will not be as deadly as the last one, which took more than 548,000 lives in the United States. New vaccines not only build up immunity in individuals, it was stated, but also reduced the virulence of the disease as it is passed on to others. More than 1,000 county employees and 1,600 children in boarding schools and orphanages have been given vaccine by the county health department.

Six Counties Meet for Scientific Session.—Dr. Nathan A. Womack, East St. Louis, addressed a joint meeting, January 30, of six county medical societies that met together for the first time. His subject was "A Consideration of Common Lesions of the Breast." The organization had been composed heretofore with the county medical societies of Jackson, Union, Williamson, Randolph and Perry. With the January 30 meeting, the Franklin County Medical Society entered the group. The organization itself has no officers. Once a month one of the societies invites the other five counties to join them in a scientific program, each county taking its turn as host and each of the six counties being host twice a year. The secretary of the host county supervises the arrangement and serves somewhat as master of ceremonies, the meetings being rotated to some place within the host county.

DEATHS

CLIFTON LEROY BELDING, Itasca, who graduated at Northwestern University Medical School, Chicago, in 1911, died Nov. 11, 1946, aged 61, of coronary thrombosis. Dr. Belding was on the staff of Bethany Home Hospital and formerly served as professor of ophthalmology at the Illinois Post-Graduate Medical School in Chicago.

MAYER S. COFFLER, Chicago, who graduated at the University of Illinois College of Medicine in 1913, died in the Mount Sinai Hospital, Chicago, Oct. 16, 1946, aged 59, of hypernephroma of the left kidney.

GRACE DEWEY, Jacksonville, who graduated at Johns Hopkins University School of Medicine, Baltimore, in 1903, died Nov. 24, 1946, in Passavant Memorial Hospital, Chicago, aged 83, of heart disease. Dr. Dewey had been secretary of the first board of trustees

of the Morgan County Tuberculosis League. She was the first woman trustee of Illinois College where she was a member of the board at the time of her death.

FRANK C. FISHER, Bloomington, who graduated at the University of Illinois College of Medicine in 1903, died January 25, aged 78. He was an emeritus member of the Illinois State Medical Society.

WALTER COLFAX LOVEJOY, Maywood, who graduated at the Chicago Homeopathic Medical College, Chicago, in 1891, died January 15, in the Westlake Hospital, Melrose Park, where he had been chief of obstetrics since 1930. Dr. Lovejoy, who was 79 years of age and a member of the Illinois State Medical Society, was formerly president of the Aux Plaines Branch of the Chicago Medical Society. He died of coronary thrombosis.

THOMAS P. LYMAN, Chicago, who graduated at Rush Medical College in 1900, died January 11, aged 80.

THOMAS C. MCGONAGLE, Chicago, who graduated at Northwestern University Medical School in 1898, died at his home January 31, aged 79. He was a member of the staff of Evangelical Hospital.

MATHIAS JOSEPH SEIFERT, Chicago, who graduated at the University of Illinois College of Medicine in 1901, died February 1 in Columbus Hospital, aged

80. Dr. Seifert, who was an emeritus member of the Chicago Medical Society, was chief of staff at Columbus Hospital and for many years had been a member of the teaching staff of the University of Illinois College of Medicine.

THOMAS GORDON TIBBY, Oakdale, who graduated at Rush Medical College, Chicago, in 1894, died in the Sutherland Hospital, Sparta, October 16, 1946, aged 75, of shock and brain concussion received when he fell down stairs.

EDWARD PATRICK TROY, Chicago, who graduated at Northwestern University Medical School in 1914, died Dec. 11, 1946, aged 59, of cerebral hemorrhage. He had been a member of the staff of the City of Chicago Municipal Tuberculosis Sanatorium since 1916, serving as superintendent of dispensary service for many years.

JOHN CARROLL WALTERS, Springfield, who graduated at St. Louis University Medical School in 1896, died in Miami, Fla., Dec. 29, 1946, aged 74. He was an honorary member of the Sangamon County Medical Society, which he had served as president in 1934-1935.

FRANK A. WILEY, Earlville, who graduated at Rush Medical College in 1888, died January 8, aged 80. He was a member of the Fifty Year Club of the Illinois State Medical Society, holding also an emeritus membership in the society.



EXPLODE MYTH THAT NEGRO IS IMMUNE TO STONES IN URINARY TRACT

Exploding the myth that the American Negro is immune to stones in the urinary tract, two Richmond, Va., physicians state that "whatever natural immunity the Negro may have is certainly modified by his mode of living and the frequent occurrence of infection in the urinary tract."

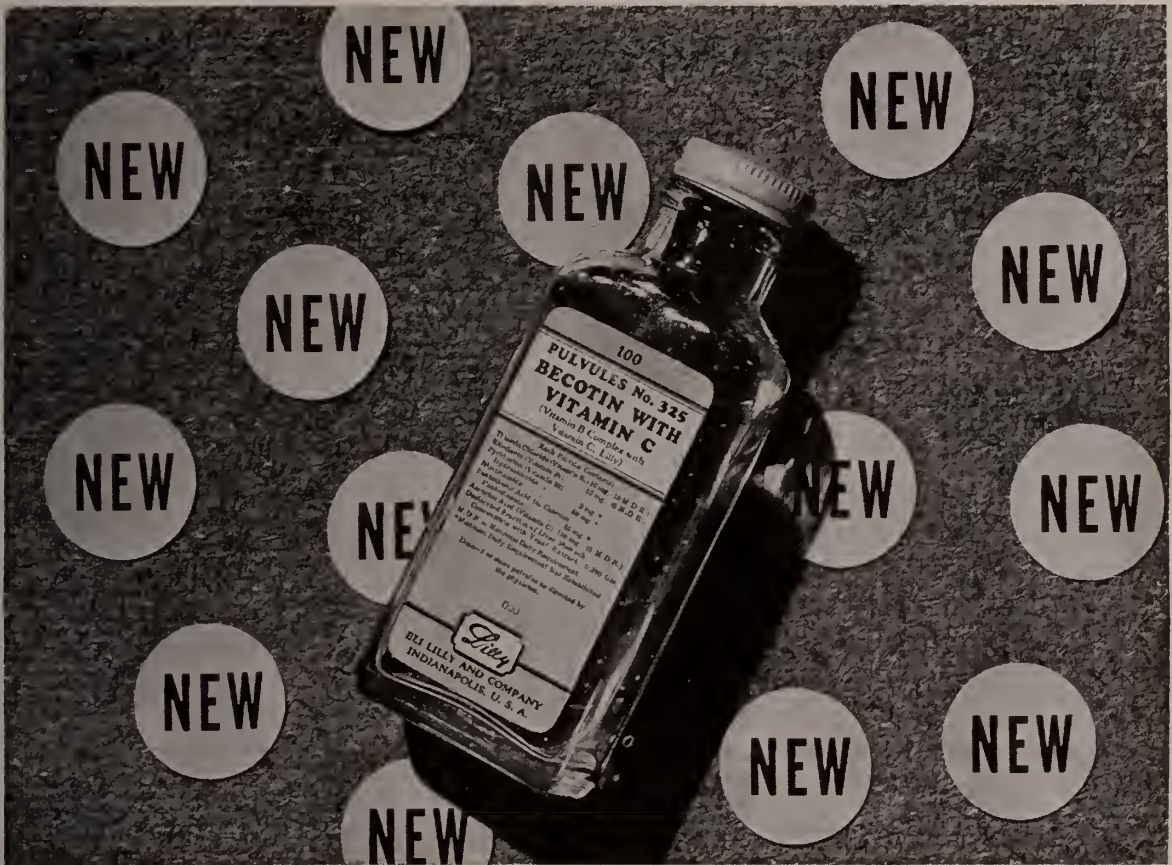
Writing in *The Journal of the American Medical Association*, Austin I. Dodson, M.D., and John R. Clark, M.D., from the urological service of the Hospital Division of the Medical College of Virginia, say:

"The frequency with which we encounter calculi of the urinary tract on the wards of the Hospital Division of the Medical College of Virginia convinces us that although urolithiasis may occur less frequently in the Negro than in the white race, it is by no means uncommon. Furthermore, we have observed that stones in the Negro are more frequently accompanied with infection and are far more destructive to renal tissue than those in white patients. The fact

that Negroes are more reluctant to seek medical aid and depend more on home remedies than do white people certainly contributes to some extent to high morbidity and mortality as a result of stone. The same thing doubtless contributes to the fact that calculi are less frequently found among them."

During the 10 year period from 1935 until 1946 there were 2,724 white patients and 1,800 Negro patients admitted to the urological service of the hospital, according to Drs. Dodson and Clark. Of these, 637 white patients and 121 Negro patients had stones in the urinary tract.

The doctors point out that the treatment of Negroes varies considerably from that usually considered advisable for white patients. The percentage of kidney removals is extremely high. Of 62 Negro patients with stone in the kidney, 20 had the kidney removed, while only 26 of 190 white patients were treated with such radical measures. The authors explain this by stating that "because of the difficulty in getting these patients to return for adequate follow-up treatment, more radical surgery usually is required than is necessary in the white patient."



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¹Human Fertility 10: 25 (Mar.) 1945.

²Warner, M. P.: J.A.M.A. 115: 279 (July 27) 1940.

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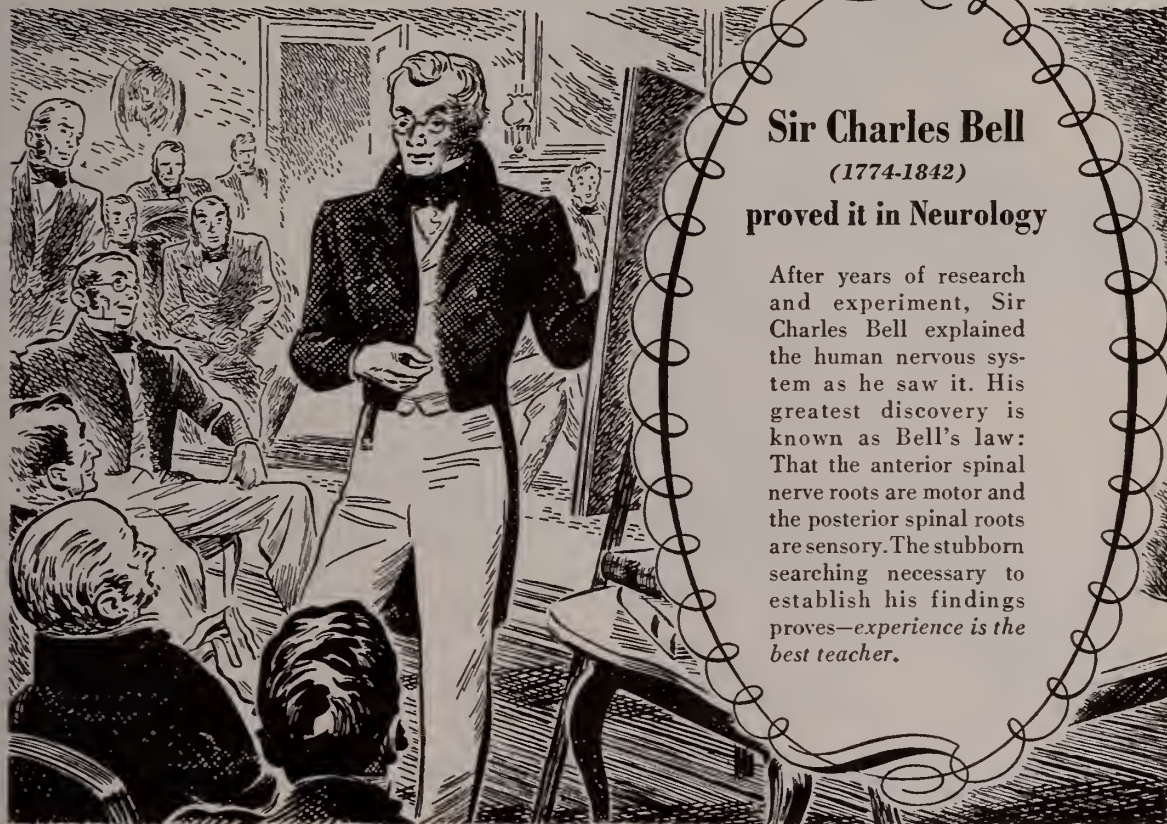
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Physical Medicine Abstracts

John S. Coulter, M.D.

ON THE USE OF ELECTRO-CONVULSIVE THERAPY AS OFFICE PROCEDURE IN CERTAIN MENTAL DISORDERS

Louis G. Moench, M.D., Salt Lake City, Utah
In ROCKY MOUNTAIN MEDICAL JOURNAL,
43:10:808
October, 1946

Electro-convulsive therapy has largely been confined to hospitalized patients, and most reports concerned with its use are from the larger mental hospitals. Because of the lack of institutional facilities, it has been necessary to treat a group of patients in the office, and permit them to return home after each treatment. Since these patients are not committed, treatment is given at the request of the family and with the consent of the patient. The patient may be urged to take treatment, but is never forced.

To date twenty-three patients have been treated with electro-convulsive therapy in the author's office. The results have been encouraging, and parallel the results obtained from treatment in hospitalized patients. The ages varied from 26 to 73 years (average 46). Of the diagnosis, sixteen were manic-depressive psychoses, depressed; two were schizophrenic; two were reactive depressions; one was a manic-depressive, hypo-manic, one was a senile psychosis; and one an obsessive-compulsive neurosis with depression.

CONCLUSIONS

1. A small group of patients has been given electro-convulsive therapy for mental disorders as an office procedure.

2. Of eighteen patients who completed the recommended number of treatments, fifteen were cured or markedly improved, two were moderately improved, and one died of a fall two

weeks after his last treatment, his psychosis unchanged.

3. The only untoward physical effect that could be attributed to the treatments was the breaking of a dental bridge.

4. Electroconvulsive therapy is a hospital procedure, but under certain circumstances, with adequate safeguards, it may be applied in the office, without undue risk.

EFFECTS OF DENERVATION ON FASCICULATIONS IN HUMAN MUSCLE — RELATION OF FIBRILLATIONS TO FASCICULATIONS

Francis M. Forster, M.D., Winslow J. Borkowski, M.D.
and Bernard J. Alpers, M.D., Philadelphia
In ARCHIVES OF NEUROLOGY AND
PSYCHIATRY, 56:3:276
September, 1946

In a previous communication evidence was presented to the effect that fasciculations in voluntary muscle have their site of origin not in the anterior horn cell but at the myoneural junction. This evidence consisted of the demonstration of continued fasciculations during pharmacologic block of the appropriate peripheral nerves or nerve roots and of the alteration of the frequency of fasciculations by drugs acting at the myoneural junction.

Subsequently, Denny-Brown mentioned the disadvantages of pharmacologic block and indicated that this type of block could not be considered absolute in the physiologic sense, for the drug employed need not affect all the fibers in a given nerve to the same degree nor could the interference with transmission of sensory or

(Continued on page 56)



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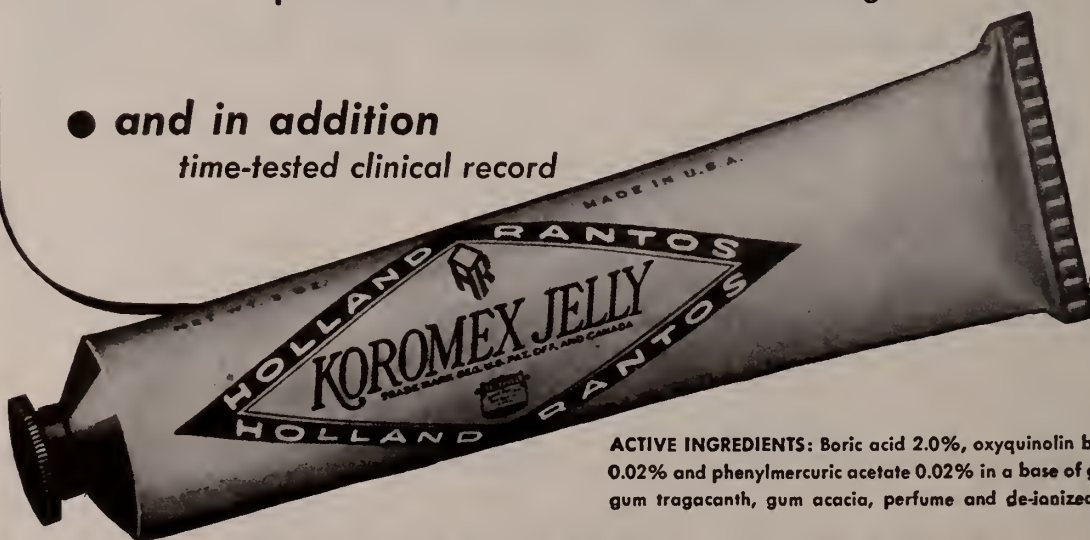
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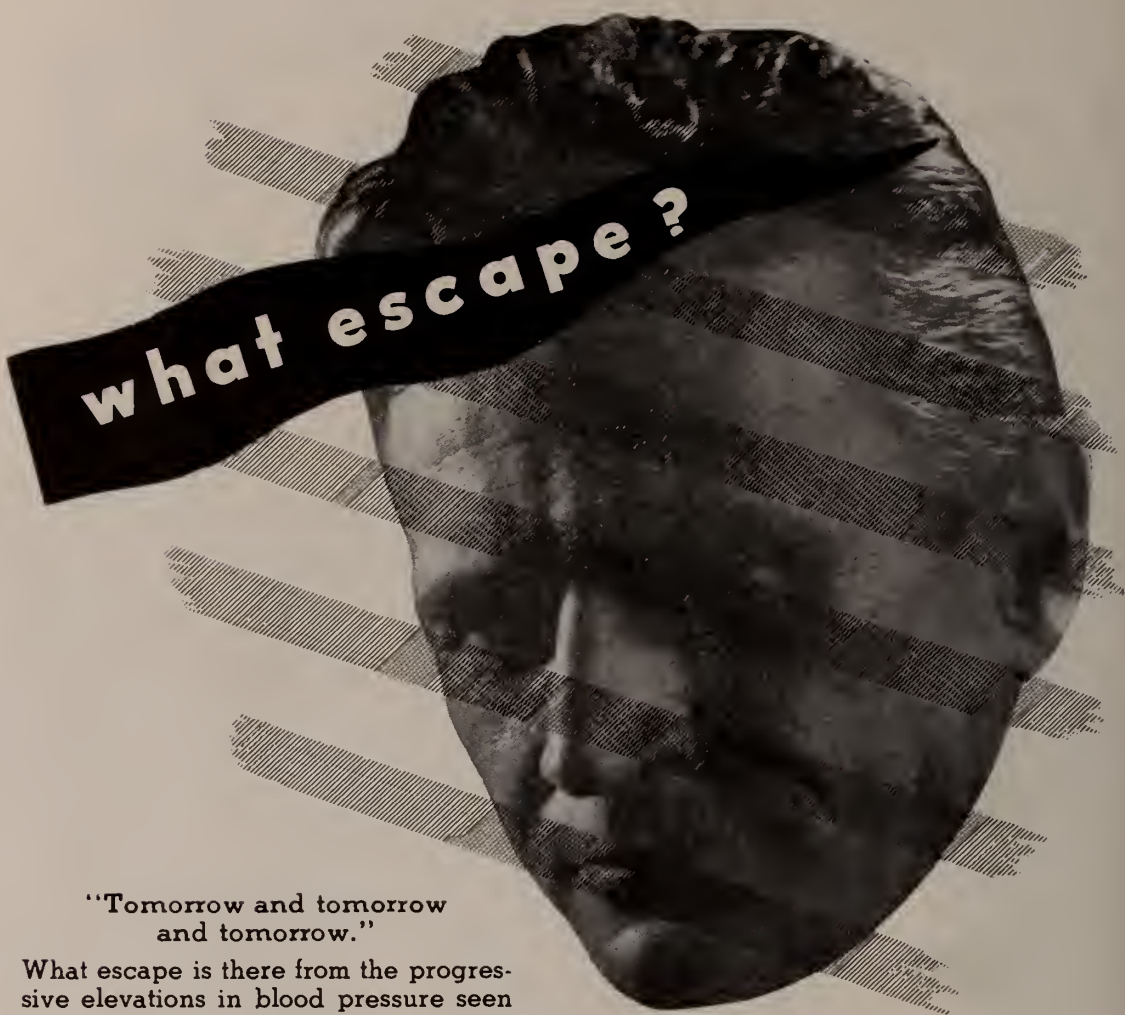
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†Fox, N. et al.: Arch. Otolaryng., 41:279 (1945).

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PHYSICAL MEDICINE (Continued)

voluntary motor stimuli permit one to conclude that all impulses were blocked.

For these reasons, confirmatory evidence for our previous premise regarding the site of origin of fasciculations was sought. It was thought that this could be supplied by observations on muscles denervated by section of the motor nerve supply. It was also hoped that by these studies some light might be thrown on the confusing problem of the relationship, between fasciculations and fibrillations.

Summary

Fasciculations do not arise at the anterior horn cell, since they are present for a time after denervation of the fasciculating muscle. Fasciculations, like fibrillations, originate at the myoneural junction. Fasciculations and fibrillations probably represent the same phenomenon, the only difference being that fasciculations are synchronized fibrillations occurring in the same motor unit. The decrease of fasciculations about four days after denervation correlates with the anatomic changes in the peripheral nerve stump. Fibrillations are probably synchronized into fasciculations by antidromic impulses from the myoneural junction and firing in axon reflex fashion. The disappearance of fasciculations is due to the destruction of the synchronizing pathway when the peripheral stump degenerates.

Every year college deans pop the routine question to their undergraduates: "Why did you come to college?" Traditionally the answers match the question in triteness. But last year one co-ed unexpectedly confided:

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The records in the chest diagnosis clinics prove that the physicians, if they are determined to do so, can perform a better job of suspecting and discovering active tuberculosis cases, year in and year out, than any other agency. Report of Comm. on Tbc. N. H. Med. Soc., N.E. Jour. Med., Sept. 26, 1946.

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Book Reviews

THE CARE OF THE AGED (GERIATRICS): By Malford W. Thewlis, M.D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City; Attending physician, South County Hospital, Wakefield, R. I.; Director, Thewlis Clinic; Special Consultant, Rhode Island Department of Public Health. Fifth Edition, Thoroughly Revised, With 65 Illustrations. St. Louis, The C. V. Mosby Company, 1946.

The first edition of this book was published in 1919 and this fifth edition followed rather closely the third and fourth editions as so many new things pertaining to the care of the aged have been brought out each year to make repeated revisions necessary to bring the book up to date. More information has been developed each year relative to the knowledge of aging, even though the real causes are still obscure. The first chapter on the history of geriatrics is most interesting and it is surprising indeed to know that the problems of aging and of the aged have been discussed by medical writers centuries ago.

The importance of the care of the aged is well brought out in the books and it is quite obvious that many of their ailments and problems have been neglected in the past, and that is most likely true today with many physicians who give so little consideration to the complaints of the aged which are real to the individual even though frequently considered as merely a penalty for living too long.

The longevity of the American people has been increasing steadily each year for a long time, and it is true that we see more people in the old age groups than ever before, yet many of these people past their three score years and ten, are still doing the daily work either in the form of manual labor or in the office, store or elsewhere. There are many factors which influence longevity, these being well discussed in the book. The more common ailments of the aged are discussed in much detail by the author, then he tells of the many unusual conditions occasionally or rarely found during senescence, but which must be looked for regardless of age.

One of the most interesting chapters for the usual reader is that relating to the cardiovascular system and the many changes found in the aging individual affecting these structures. In these considerations, the symptoms, diagnosis, prognosis, prevention and treat-

(Continued on page 66)

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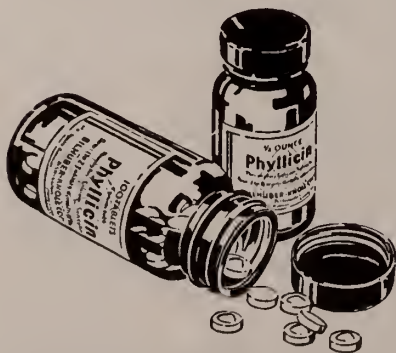
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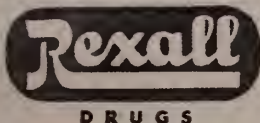
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BOOK REVIEWS (Continued)

ment are well brought out naturally increasing the value of the articles to the physician.

The book is well written, covers the subject well indeed, and should be of much value to any physician today who must necessarily in his practice face the many problems of the aging, and the aged, and he will find much in the book which will be of value to him in his daily routine.

SYNOPSIS OF PATHOLOGY: By W. A. D. Anderson, M.A., M.D., F.A.C.P., Professor of Pathology and Bacteriology, Marquette University School of Medicine; Pathologist, St. Joseph's Hospital, Milwaukee, Wisconsin. Formerly Associate Professor of Pathology, St. Louis University School of Medicine. With 327 Text Illustrations and 15 Color Plates. St. Louis, The C. V. Mosby Company, 1946. Price \$6.50.

The book was originally intended to fill a gap between elementary manuals of pathology and the large text books and reference works on that subject. The author realizing that basically, a knowledge of anatomy, histology, physiology, biochemistry and bacteriology is highly essential for the student or clinician desiring to study the abnormal tissues, he has endeavored to get this basic information into the present volume with its proper evaluation.

The present edition has many things which did not appear in the first edition, and it is quite obvious that

the book has been thoroughly revised and brought up to date. Tropical medicine or the consideration of the tropical diseases, as well as other phases of war medicine are included in the present edition of the book.

The format is excellent, the size of the book even though having more than 700 pages, makes it one which can easily be carried by the student or physician if desired, and it is arranged so the reader can find what he wants in a minimum of time. The 327 illustrations, with 15 color plates likewise add materially to the appearance as well as the value of the book.

The author has done a good job, and it is quite obvious that this present enlarged edition will meet with the same popular approval as was given the first edition published in 1942.

CLINICAL HEMATOLOGY: By Maxwell M. Wintrobe, Ph.D., Professor of Medicine, University of Utah, School of Medicine, Salt Lake City, Utah; Formerly Associate in Medicine, Johns Hopkins University, Associate Physician, Johns Hopkins Hospital, and physician-in-charge, clinic for Nutritional, Gastro-Intestinal and Hemopoietic Disorders, Baltimore, Maryland. Second Edition, Thoroughly Revised. Illustrated with 197 engravings and 14 plates, 10 in color. Lea and Febiger, Philadelphia, 1946. Price \$11.00.

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book was published there have been many advances in the field of hematology which made it essential to bring the book up to date. The importance of hematologic studies has been increasing rapidly in the field of medicine as more information has been developed each year. Likewise the increasing use of some of the newer therapeutic agents which occasionally causes disturbances in the hematopoietic system and which necessitates blood counts at frequent intervals, makes books of this type of greater value to physicians in general.

The book is truly comprehensive, complete and authoritative. The author quite obviously has been most meticulous in reviewing an enormous amount of current literature on the subject to make such a book possible. Laboratory procedures are outlined in much detail so that most of the required tests and examinations can be made in the physician's office with a minimum amount of apparatus being required.

There are many things in the new edition that have been added to make the book completely up to date. Much information has been added relative to the anti-pernicious anemia liver factor, and the use of folic acid now being used in pernicious anemia, as it has been shown that this substance can produce a remission in the disease.

The importance of the Rh factor and its role in many blood transfusion reactions likewise is clearly presented. Recent changes in the treatment of leukemia and the use of the nitrogen mustards for the treatment

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BOOK REVIEWS (Continued)

of Hodgkin's disease and related disorders are also well discussed.

The value of this fine book is greatly increased by the many engravings and plates, some in color, which appear appropriately throughout the book. This edition has been completely revised; the format is excellent, and although covering the entire field of hematology, it is primarily clinical and gives in much detail the information physicians need in diagnosing and treating the many clinical entities found in the hematopoietic system.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

GYNECOLOGICAL AND OBSTETRICAL PATHOLOGY With Clinical and Endocrine Relations: By Emil Novak, A.B., M.D., D.Sc. (Hon. Dublin) F.A.C.S., Assoc. in Gyn., Johns Hopkins Medical School; Gynecolo-

gist, Bon Secours and St. Agnes Hospitals, Baltimore; Fellow, American Gyn. Society, American Association of Obstetricians, Gynecologists and Abdominal Surgeons and Southern Surgical Association; Honorary Fellow, Societe Francaise de Gynecologie; Royal Institute of Medicine, Budapest; Sociedad d'Obstetricia et Ginecologia de Buenos Aires; Central Association of Obstetricians & Gynecologists; Texas State Assoc. Obst. and Gynec.; Past chairman, Section of Gyn. and Ob., A.M.A. Second edition, with 542 illustrations, 15 in color. 570 pages. Philadelphia and London: W. B. Saunders Company, 1947. Price \$7.50.

ALLERGY IN THEORY AND PRACTICE: By Robert A. Cooke, M.D., Sc.D., F.A.C.P., Attending Physician and Director of the Department of Allergy, the Roosevelt Hospital, New York City. 572 pages, with 43 illustrations. Philadelphia and London: W. B. Saunders Company, 1947. Price \$8.00.

AN INTEGRATED PRACTICE OF MEDICINE — A Complete General Practice of Medicine from Differential Diagnosis by Presenting Symptoms to Specific Management of the Patient: By Harold Thomas Hyman, M.D., Volumes I, II, III, and IV, and Index. 1184 illustrations, 305 in color. 319 Differential Diagnostic Tables. Philadelphia and London: W. B. Saunders Company, 1947. Price \$50.00 per set.

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In Preventing Spread Of Milk-Borne
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The Council on Foods and Nutrition of the American Medical Association says "the public should demand pasteurized milk for drinking and the use of pasteurized milk in milk products."

An editorial in the January 25 issue of *The Journal of the American Medical Association* states that "the value of pasteurization of milk in preventing the spread of milk-borne disease is now well established." Continuing, the editorial says:

The Council on Foods and Nutrition of the American Medical Association in an official statement says, in part, "The pasteurization of milk is a public health measure. The public should demand pasteurized milk for drinking and the use of pasteurized milk in milk products. The dairy trade should universally adopt pasteurization in the interest of public health. Only pasteurized milk is granted recognition by the council. There is no cogent evidence that pasteurized milk is significantly inferior nutritionally to raw milk." Progressive city health departments have long required

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PASTEURIZED MILK (Continued)

compulsory pasteurization; in 1943 the Boston Health Department succeeded in adopting a regulation putting an end to the sale of raw milk in that city. Now the New England Journal of Medicine editorializes with righteous wrath against a recent outpouring on the choice of milk by William Brady, M.D., syndicated health columnist. "Any old milk," according to Brady, "regardless of its source, quality or purity, is made safe for infant, child, invalid or adult by scalding . . ."! Certified milk is Brady's first choice and pasteurized milk, though he appears to have heard of it, is not even his third. This irresponsible pronouncement can only reflect ignorance of or disbelief in modern scientific concepts. William Brady's individual whims and foolish notions about removal of tonsils, injection methods, prevention of infection, the uses of iodine and a

half dozen other subjects have been circulated by newspapers to the detriment of the public health. Every time he cuts loose, as he seems to do more and more frequently with advancing age, *The Journal* receives communications from doctors who want to know why something is not done to prevent the perpetration of his fallacies. Their communications might better be addressed to local editors who purchase the column from the syndicates and must therefore be responsible for its appearance in the newspapers they edit.

Screams for help coming from a house caused a passing pedestrian to rush to the open door and offer his services. A distracted mother explained that her little son had just swallowed a quarter. The stranger grabbed the child by the feet, lifted him into the air and shook him vigorously. In a moment the coin dropped out of the child's mouth. The relieved mother was profuse in her thanks.

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VOL. 91 * NO. 4

April, 1947

In This Issue

Program of Annual Meeting

PALMER HOUSE CHICAGO, MAY 12, 13, 14, 1947



Pictorial Report of a
Post Graduate Conference



Illinois Hospital Survey
Progress Report



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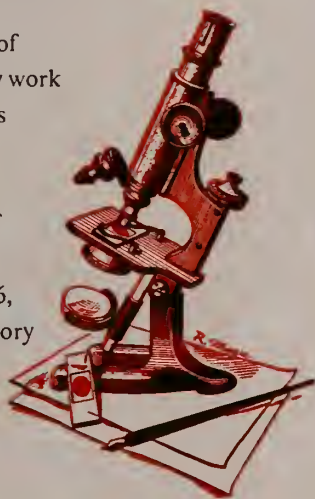
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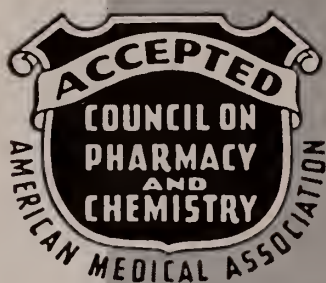


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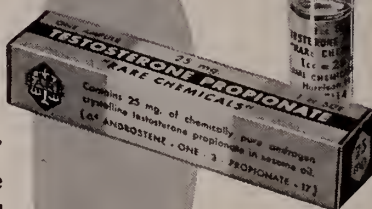


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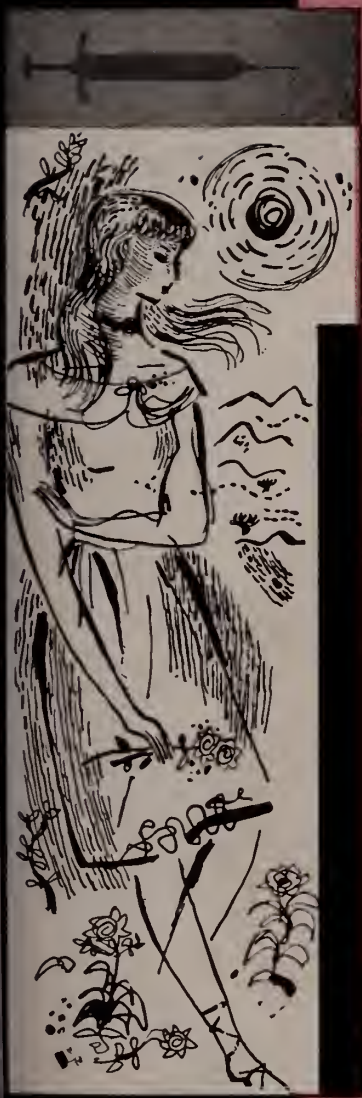
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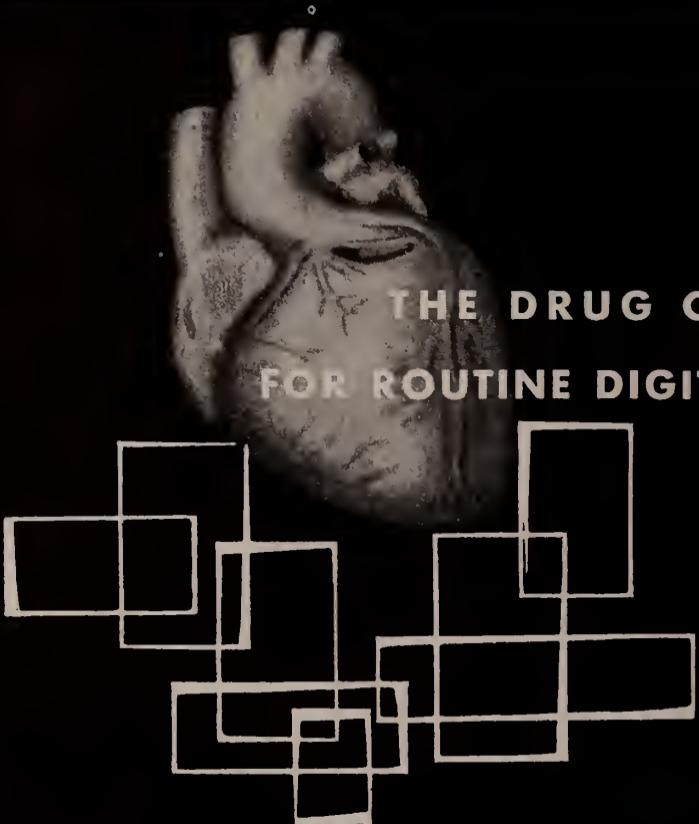
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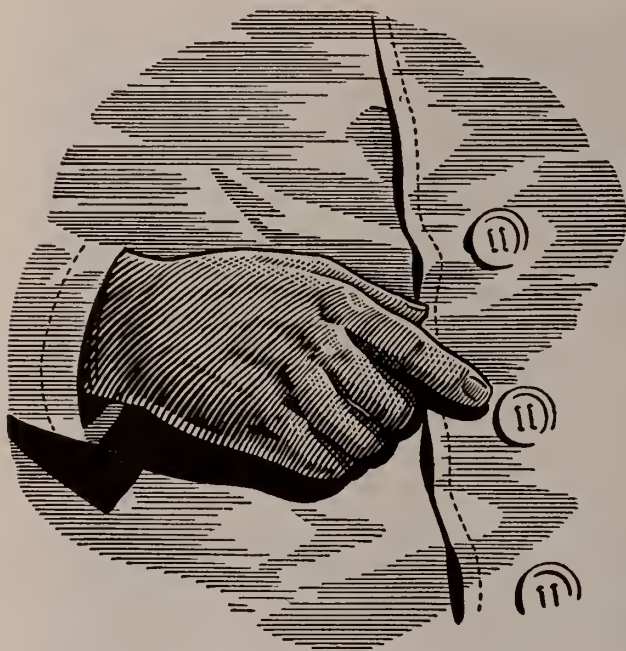
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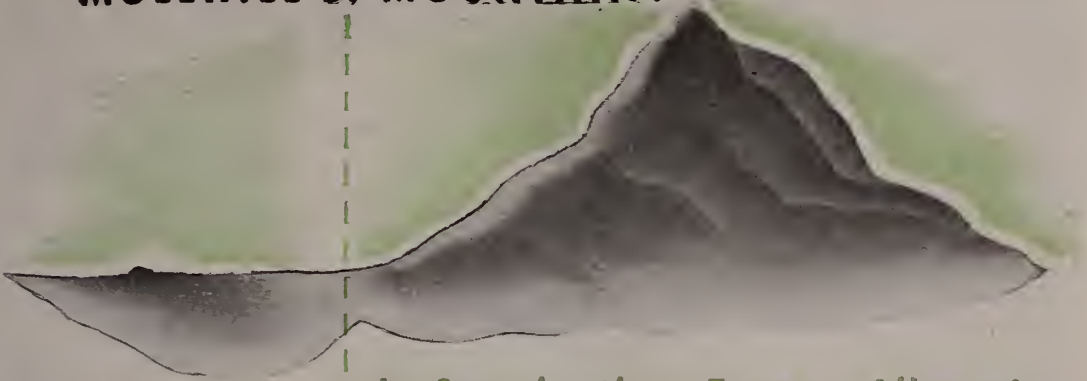
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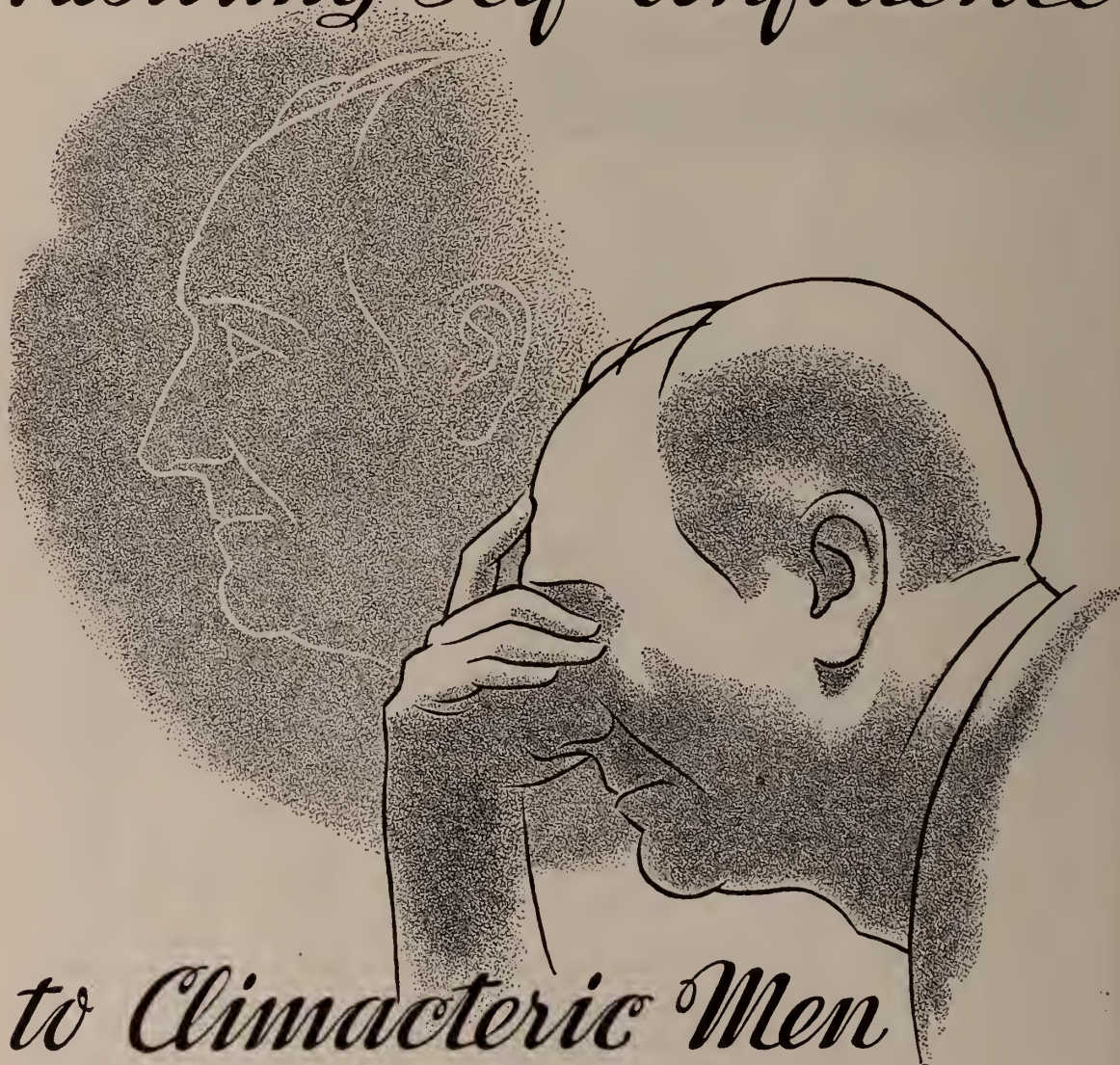
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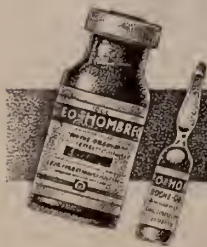
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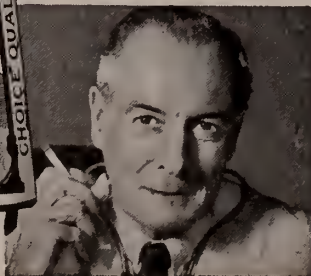


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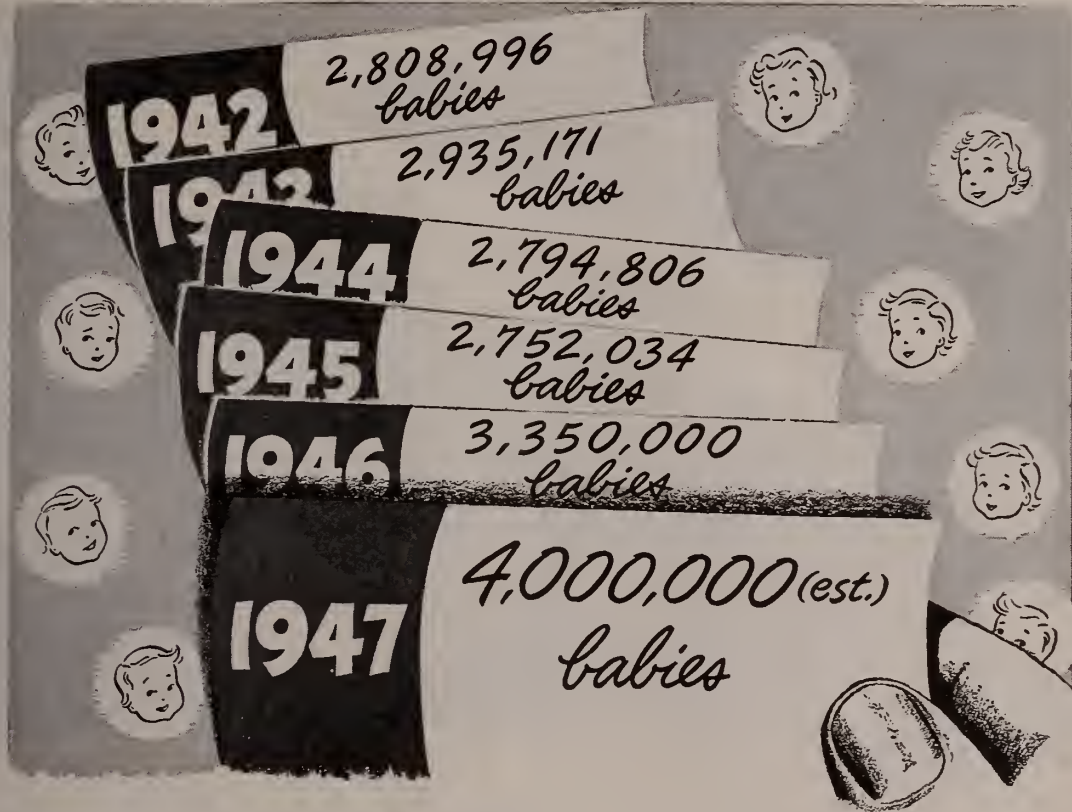
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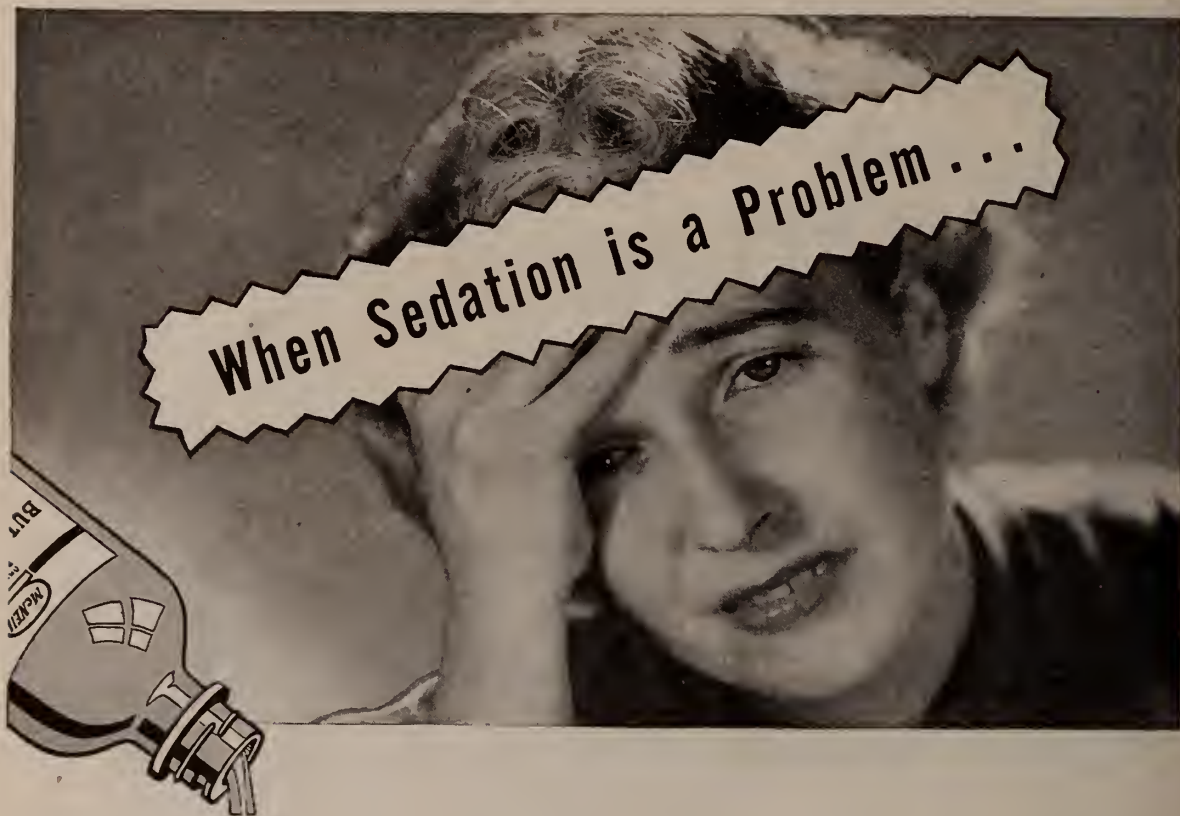
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The Illinois Medical Journal

April, 1947

VOL. 91, NO. 4

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

THE 1947 ANNUAL MEETING

A preliminary program for the 1947 annual meeting of the Illinois State Medical Society is published in this issue of the Illinois Medical Journal. The printed program is not nearly complete as it is necessary to go to press in early March, but the official program as usual, will be distributed to all physicians who register at the annual meeting.

On or about May 1, a program synopsis giving pertinent information as to speakers and subjects for all sessions will be mailed to every member of this Society so that each of you may have the information before the annual meeting. There will be a number of other meetings of allied professional groups on Monday, May 12, and information concerning these meetings and the program for each will likewise appear in the program summary to be mailed from the Secretary's office.

Unusual efforts have been made to make this an outstanding meeting, and the program is arranged to meet with the popular appeal. The presentations before the joint assembly have been made with that idea in mind and the papers arranged so that they will be of special interest to those in general practice throughout the state.

This is the members' own meeting and it is hoped that an all-time high in attendance will be reached in the 1947 annual meeting.

THE MEDICAL BENEVOLENCE FUND

Although the Committee on Medical Benevolence has been functioning for the past six years, the major portion of the money paid to the beneficiaries to date has been appropriated from Society funds by the Council. The Woman's Auxiliary has added substantial sums from time to time during the past three years, and this has been a major project of Auxiliary activities.

In considering the subject of medical benevolence, many times in recent years both the House of Delegates and the Council have planned for a permanent fund large enough so that the interest alone would pay all beneficiaries. The House of Delegates has placed a maximum grant of \$30.00 per month to beneficiaries. Only the three members of the Benevolence Committee actually know to whom the benevolence checks go each month. All records and transactions are subject to an annual audit, but the report of the auditor never mentions the name of any beneficiary.

Every member of the Illinois State Medical Society has received a letter and a blank form to be used in sending donations to the Medical Benevolence Fund. All checks received are promptly placed in the medical benevolence account and a record of all donations is kept separate from all society records. These records likewise will be audited carefully and a report

will be made by the Committee Chairman to the House of Delegates at the annual meeting in May.

It is hoped that the response on the part of the membership of this Society will be such that an increased amount may be given to beneficiaries in the near future. The Committee has received many letters telling how much the beneficiaries appreciate the monthly checks and how much it has meant to them. Some of these letters have been written by disabled members and many have come from the widows of former members whose husbands were "good doctors but poor business men", never failing to care for their patients, yet too often poor collectors and when they died, left but little for their families.

During recent years several members have reported some elderly patients who had heard of this Medical Benevolence Fund and had ex-

pressed a desired to leave money from their estate to help such a worthy cause, usually because they had a loyal and faithful family physician whose memory would always be revered.

Likewise, a number of our members have stated that they would like to add a codicil to their own will so that funds would be available to be added to the Medical Benevolence Fund.

With the approval by the Council of the Medical Benevolence Committee's request that a permanent fund be established, all this is now possible, and the membership as a whole will be intensely interested in the regular reports of progress to come from the committee.

The Committee hopes that checks from members will be sent in promptly — the exact amount to be left entirely to the judgment of the member-donor.

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THROMBOEMBOLISM

JAMES H. FERGUSON, M.D.

CHICAGO

We are going through a phase in which many clinics are sifting the types of treatment and their indications in thromboembolism. We have passed through an epoch which established the difference between thrombophlebitis and phlebothrombosis, and the fact that practically all fatal emboli have their origin in a process that begins in the lower part of the lower extremities. Thrombophlebitis is recognized as a frank infection, rarely missed. The much more lethal phlebothrombosis is insidious and requires a constant clinical alertness to diagnose it when something can still be done; its clot has the predisposition to break off and travel to the lung. Great hope is offered by evidence that mild, warning episodes of embolic accidents presage a substantial portion of the calamitous pulmonary infarctions. Lam at Henry Ford Hospital in Detroit found that in 78 fatal cases 20 had had a previous nonfatal pulmonary embolism¹.

Muscle tenderness, the not quite pathognomonic Homan's sign of calf pain on extreme dorsiflexion of the foot, the slight chest pain not to be passed off as "a touch of pleurisy", and evidences of interference with the great venous pathways of the extremities arouse a suspicious mind. Venography seems destined to be used in a few institutions with special interest in that diagnostic procedure. A new and freshened attention of nurses to leg discomfort could be enlisted by emphasis on thrombo-embolic disease in their teaching rounds and lectures.

Pathologically, the high frequency of phlebothrombosis is on firm ground. A representative finding is that of Hunter and his associates at the University of Oregon who, in 400 consecutive autopsies with deaths from all causes, found that in patients who had not been exercising prior to death there was a 53% incidence of thrombosis in the deep calf veins and 18% in unexercised patients². In Chicago, W. J. Potts had pioneered in demonstrating the relationship between thrombus formation and delayed circulation³. Clinically, the importance of the thromboembolic syndrome has many enthusiastic protagonists and few detractors. A geographical or climatic distribution of thrombosis and a difference in criteria for diagnosis could well ac-

count for lack of complete accordance. Compilation of statistics from large services discloses undeniable evidence that about 6% of postoperative deaths and 2% of all deaths are due to pulmonary embolism⁴. Death was due to the same cause in 2.7% of 25,771 autopsies reported by McCartney from the University of Minnesota⁵.

Debility, tissue injury, circulatory retardation, anemia, hemoconcentration, stationary states, and obesity are its handmaidens. They suggest the prophylaxis. Heretical eyes have been cast on Fowler's position⁶.

A regime of bed rest and elevation has become therapeutic nihilism. The trends in management are venous ligation proximal to the clot, sympathetic lumbar block, and the anticoagulants heparin and dicoumarol. Once the tremendous Trendelenburg operation as a rescue from the ensuing embolism had to be considered as the salvation. Even the vena cava has not been inviolate from ligation. Moses at the Gallinger Municipal Hospital in Washington has ligated the vena cava in 21 desperately ill patients where heroic measures were called for, and 11 were salvaged⁷. With the suppurative type of pelvic thrombophlebitis Collins at Tulane has ligated the same vessel 14 times, and 12 survived the operation⁸. The frequency with which veins, usually femoral, are ligated is gaining. A. W. Allen and his group at the Massachusetts General Hospital since 1937 have ligated one or both femoral veins in 1667 patients; they are extending the indication to prophylactic ligation even before evidence of thrombosis in major abdominal surgery and fracture of the femur of elderly patients⁹. Undesirable sequelae of venous ligation are of such minor and infrequent occurrence as to not deserve first concern. The physician who sees his critically ill patient, without danger, subjected to the simple maneuver of opening the femoral vein and a long clot sucked out prior to ligation is a convinced physician. The patient with a thrombophlebotic process who has had the ease afforded by lumbar block, either as an adjunct to surgery alone, is a grateful patient. The block relieves the vasospasm of the arterial and venous systems, shortening the course of the disability. Development of anastomosis is expedited. Handling of cases with heparin and dicoumarol is probably within the capabilities of everyone who has available the laboratory control necessary for the safe use of these drugs. They

may be used as a suppletory treatment when thrombosis exists or prophylactically in the patient fated to develop it. We have come a long way from "milk leg".

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MAKE YOUR RESERVATIONS NOW!

The 1947 Annual Meeting of the Illinois State Medical Society will be held at the Palmer House, Chicago, on May 12, 13, 14. Meetings will begin at 9:00 a.m., Monday, May 12th, and continue until Wednesday afternoon at 5:00 p.m., May 14th. All members of this Society will be interested in the scientific programs, the scientific and technical exhibits.

The preliminary program is published in this issue of the Illinois Medical Journal, and the official program will be given to all registering at the meeting.

Hotel reservations for the meeting should be made as early as possible so that everyone will be assured of suitable accommodations. All reservations are to be made by the hotel instead of through a hotel committee, and we are assured that enough rooms will be available for all if reservations are made now. When writing the hotel, physicians should state that they are to attend the annual meeting of the State Medical Society, and they will receive an immediate reply. State in your letter the type of accommodations that are desired — whether a single or double room is needed, etc., — and the hotel will be able to act accordingly.

It is important that the time of arrival is mentioned so that there will be a minimum delay in getting the room when it is desired.

With the unusually interesting programs which have been arranged, the 1947 Annual Meeting should be well attended. It is hoped that all members will plan to remain through the entire three day session.

MAKE YOUR RESERVATIONS NOW!

TUBERCULOSIS — THE SHAME OF ILLINOIS

JAMES H. HUTTON, M.D.
CHICAGO

The State's record in regard to its handling or lack of handling of tuberculosis is one of incredible stupidity. When Koch discovered the tubercle bacillus in 1882 he announced that the disease was preventable and eradicable. Seventeen years later, in 1899, the 41st General Assembly by joint resolution of the House and senate directed the State Board of Health to survey the situation and investigate the advisability of establishing a state sanatorium for consumptives in Illinois. The board reported in 1900 that such a sanatorium should be built, but by that time the legislators were no longer interested in saving themselves, their families or their friends from infection and so it was not built. In 1907, 1909, 1911 and 1913 Governors Tanner and Yates asked the legislature for an appropriation of \$200,000 to erect a state sanatorium for tuberculosis, but the appropriation was never made.

In 1908 the Glackin Act became a law. By this the legislature said in substance: "While we are not interested in quelling the disease, if counties, cities and villages wish to tax themselves to take care of tuberculosis, the State by this law graciously permits them to do so." Under the authority of this law most counties of the State have raised money to fight the disease. A valiant effort has been made by a group of devoted men and women to bring tuberculosis under control. Such reduction as has occurred in the incidence and mortality of the disease is due to their efforts. The whole state is greatly indebted to them.

At the last session of the legislature Dr. Cross and Governor Green secured from the 64th Assembly an appropriation of approximately four million dollars, one half to be spent in Cook County and one half downstate, for the erection of tuberculosis sanatoria; but no beds were built. Under Dr. Cross's leadership the Division of Tuberculosis Control was animated and does what it can with the meager resources available. Illinois and Nevada are still the only states in the Union having neither state sanatoria nor a

state subsidy to assist small units in government in taking care of tuberculosis.

In 1944 a survey "Control of Tuberculosis by the State," by the Illinois Legislative Council, showed the average expenditure of each state per tuberculosis death per year was \$309 plus while Illinois spent 42c — some accounts say 44c.

What is the situation now? It is exactly what one would expect from this sort of a record. In the past decade or so every state that touches Illinois except Kentucky has a better record as regards reduction in tuberculosis mortality than has Illinois. In 1945 the mortality rate for the state was 40.4 while for Chicago it was 48.9. In Iowa it was 15 plus. The death rate is already rising in some sections of the State.

Tuberculosis can be prevented. If it is recognized early and properly treated most patients promptly recover. The disease can for all practical purposes be eradicated. And yet approximately 3,200 Illinois citizens die each year from this preventable disease while the State scarcely lifts a finger to help in the fight against it.

The curious thing is that legislators — and for that matter people generally in this state — seem to feel that tuberculosis is some one else's disease and is paid for by the victim and his family. The idea is completely wrong. Tuberculosis has to be paid for by society. The only choice is how the bill will be paid. If the State continues, as it has up to this time, it will have to spend more money in caring for the victim and his dependent family and will have to continue doing so throughout eternity so far as present indications go. If the head of a family is stricken with tuberculosis the family's resources are exhausted in about one year. After that society takes care of the victim and his dependent children, and after his death gives his widow a pension. The expenditure in taking care of the results of the disease far exceed the money spent for its eradication.

On the other hand, if the State wished to increase its expenditures to eradicate the disease, it would in a comparatively short time become a rarity. The State would then have to spend very little for the disease and nothing for the family of the victim. If we wish to be hard-boiled and disregard all humanitarian ideas, from a strictly financial point of view the cheap-

est thing the State can do is to appropriate sufficient money to reduce the incidence of this disease to the vanishing point.

In asking for only fifteen million dollars for the construction of hospital beds, we are being extremely conservative. That will not produce enough beds to stop the disease, but it may build as many as can be economically built, staffed and operated in the next biennium. The record by that time should be such that the legislature would be glad to appropriate such additional funds as will be needed. As the State has never had any experience in the field, we feel that it should proceed cautiously.

This is one of the most important questions that will face the Assembly. It is one of the few projects the State will be asked to finance that is self-liquidating. When it is completed, the beds erected for the care of tuberculosis can then be used for victims of cancer and other chronically ill patients.

This criticism is directed not at our elected representatives but at all the citizens of Illinois. It is our duty to present this problem to the legislature and to offer good evidence to the legislators that public opinion will support them in making the necessary appropriations.

REVISION OF FEE SCHEDULE FOR MEDICAL CARE OF PUBLIC AID RECIPIENTS

The following statement has been prepared by the Illinois Public Aid Commission at the request of the Editor, to acquaint Illinois participating physicians of the present fee schedule for medical care of their public aid recipients.

For some time both the Illinois Public Aid Commission and the Medical Advisory Committee appointed by the Illinois State Medical Society have been concerned about complaints of inadequacies in the surgical fee schedule. At a meeting in January, the Medical Advisory Committee recommended certain changes in surgical fees. These provide that the ordinary maximum for major surgery, including thirty days after-care, is to be \$75.00. The committee also designated certain exceptions to this maximum, naming as exceptions those surgical procedures that occur most frequently. For the following

exceptions, the maximum surgical fee allowed will be \$100.00

Brain surgery	Resection of breast
Cholecystectomy	(radical)
Gastro-enterostomy	Resection of colon or
Hip fracture	stomach
Hysterectomy	Resection of prostate,
Nephrectomy	total procedure (any
	type)
	Thyroidectomy

These recommendations were accepted by the Illinois Public Aid Commission and were made effective February 1. The increases apply in the Aid to Dependent Children, Blind Assistance, and Old Age Pension programs in all downstate counties. Because of a slight difference in the medical care program in Cook County, the recommendation does not currently apply there. The State Medical Advisory Committee is meeting with a committee of the Chicago Medical Society and with representatives of the Illinois Public Aid Commission in an endeavor to adjust the program so that it will be uniform throughout the state and will not differ in Cook County as it has for some two years.

County medical advisory committees and county medical societies were advised of the increase in surgical fees by the State Medical Advisory Committee, with a detailed statement going to each group from the state committee. This statement also invited comments from county medical societies and county medical advisory committees to the state committee with regard to the programs of the Illinois Public Aid Commission.

When the State Medical Advisory Committee recommended the increase in surgical fees to the Commission, the committee also recommended that the statewide fee schedule now in effect for Old Age Pension, Blind Assistance, and Aid to Dependent Children should constitute a maximum for all assistance programs including General Relief. In making this recommendation and in helping the Commission to establish a fee schedule, the committee considered the fact that the amount of assistance given to persons dependent on the four major public assistance programs in Illinois is only sufficient to maintain a minimum adequate standard of living — for example, food allowances are based on low cost foods. The committee felt therefore that

charges by physicians should be related to the total income and living standards of the assistance recipients. Since the living standards of persons on General Relief are no higher than those receiving assistance in other categories, it was felt that payment for medical care in the General Relief program should not exceed that in the other programs. Generally, the rates are comparable but there are some places in the state where rates are considerably higher than the present maximum. When the committee considered the fact that approximately 75 per cent of all persons on assistance are benefitting from Old Age Pension, Blind Assistance, and Aid to Dependent Children, it appeared that the increase in fees in these programs would more than compensate physicians for any adjustments that might be necessary in a few places in the state in the General Relief program.

In accordance with the committee's recommendation, representatives of the Illinois Public Aid Commission are now beginning discussions with county medical advisory committees and county medical societies about the possibility of adjustments in the General Relief fee schedules, so that will not be the major differences now existing in some places.

THE ANNUAL SUMMER ROUND-UP

The Council of the Illinois State Medical Society has approved a recommendation of the Educational Committee that all county medical societies and their individual members lend their support to the annual Summer Round-Up of the Illinois Congress of Parents and Teachers.

Inaugurated in 1925, the Summer Round-Up was launched as a health project of the National Congress of Parents and Teachers. Subsequent approval to the physical examinations of pre-school children was given by the Council of the Illinois State Medical Society. Emphasis was placed on the fact that these examinations should be carried on at the county or local level.

County medical societies are urged to appoint a chairman or a committee on child health to expedite the arrangements for Child Health Week and members are urged to cooperate in promoting the examination of pre-school and school children as required by the laws of the

State of Illinois by any suitable means available.

Approved by the Educational Committee and the Committee on Medical Service and Public Relations, the recommendation of the Subcommittee named to study the annual Summer Round-Up is as follows:

"That the Illinois State Medical Society cooperate with the Illinois Congress of Parents and Teachers or other approved groups in promoting the examination of pre-school and school children as required by the laws of the State of Illinois, by any suitable means available, and that we further

Recommend that all arrangements for the examination of these children be made at the county or local level, and further that

We request each County or local unit of the Illinois State Medical Society to designate a chairman or a committee to serve as the Child Health Committee to cooperate with the local Parent-Teacher Association or any other organization which may be sponsoring this program.

The Committee urges that all physicians in Illinois lend their assistance and efforts in every way possible to all objectives in Child Health Week."

LOCAL COMMITTEES ON ARRANGEMENTS FOR 1947 ANNUAL MEETING

Each year when arrangements are under consideration for the annual meeting of the Illinois State Medical Society a General Chairman of the Committee on Arrangements is selected and under his guidance, various committees are appointed to care for all essential local arrangements in connection with the meeting. For the 1947 annual meeting, Dr. H. Kenneth Scatliff, 4753 E. Broadway, Chicago, was appointed as General Chairman and Dr. R. C. Oldfield, 539 Jackson Avenue, River Forest, was appointed as Vice-Chairman.

There are many duties to be performed by the Committee on Arrangements in order to have a highly successful annual meeting. With the organization and cooperation manifested by the group so selected, all arrangements will be complete and will aid materially in assuring the membership as a whole that this will be an outstanding year.

The organization, sub-committees and their personnel are as follows:

COMMITTEE ON ARRANGEMENTS:

Dr. J. J. Moore, 55 E. Washington Street
 Dr. Fred H. Muller, 8056 S. Justin Street
 Dr. Oscar Hawkinson, 807 N. East Ave., Oak Park
 Dr. James P. Simonds, 234 E. Pearson Street
 Dr. Frank F. Maple, 122 S. Michigan Avenue
 Dr. James H. Hutton, 30 N. Michigan Avenue
 Dr. Charles H. Phifer, 30 N. Michigan Avenue
 Dr. Robert H. Hayes, 30 N. Michigan Avenue
 Dr. Malcolm T. MacEachern, 40 E. Erie Street

Dr. Harry M. Hedge, 30 N. Michigan Avenue
 Dr. R. C. Oldfield, Vice Chairman, 715 Lake Street, Oak Park
 Dr. H. Kenneth Scatliff, Chairman, 4753 Broadway

THE ANNUAL DINNER COMMITTEE:

Chairman: Dr. Warren W. Furey, 104 S. Michigan Ave.

Members:

Dr. Arkell M. Vaughn, 1180 East 63rd Street
 Dr. Herbert E. Schmitz, 25 E. Washington St.
 Dr. Frank Fowler, 1608 Milwaukee Avenue
 Dr. Ben E. Fillis, 1604 Chicago Ave., Evanston
 Dr. J. J. Moore, 55 E. Washington Street
 Dr. Fred H. Muller, 8056 S. Justine Street
 Dr. Wade C. Harker, 4458 W. Madison Street
 Dr. Willard O. Thompson, 700 N. Michigan Ave.
 Dr. Reid O. Howser, 715 Lake Street, Oak Park

WOMEN PHYSICIAN'S COMMITTEE:

Chairman: Dr. Marie Wessels, 720 N. Michigan Avenue

Members:

Dr. Evangeline E. Stenhouse, 55 E. Washington Street
 Dr. Luella E. Nadelhoffer, 1305 E. 63rd Street
 Dr. Katherine Wright, 811 Lincoln St., Evanston
 Dr. Joan Fleming, 8 South Michigan Avenue
 Dr. Joella C. Rentfro, 4753 Broadway
 Dr. Victoire Lespinasse, 7 W. Washington Street

COMMITTEE ON REGISTRATION & INFORMATION:

Chairman: Dr. F. Lee Stone, 939 N. LaSalle Street

Members:

Dr. Caesar Portes, 25 E. Washington Street
 Dr. John R. Wolff, 30 North Michigan Ave.
 Dr. I. S. Trostler, 25 E. Washington Street
 Dr. Eugene F. Carey, 6856 S. Halsted Street
 Dr. Frank J. Smejkal, 5822 N. Kolmar Avenue
 Dr. Wright Adams, 5755 Harper Avenue
 Dr. Clarence K. Jones, 122 S. Michigan Ave.
 Dr. John T. Gregorio, 4458 W. Madison Street

PUBLICITY COMMITTEE:

Chairman: Dr. Paul C. Vermeren, 4753 Broadway, Chicago

Dr. R. F. Greening, 4013 Milwaukee Avenue
 Dr. J. Roscoe Harry, 738 W. Sheridan Road
 Dr. P. R. Blodgett, 1602 Otto Blvd., Chicago Heights
 Dr. Maurice Hoeltgen, 1607 W. 51st Street
 Dr. Harry Stephens, 105 N. Oak Park Ave., Oak Park

RECEPTION COMMITTEE:

Chairman: Dr. H. Prather Saunders, American College of Surgeons, 40 E. Erie Street, Chicago

Members:

Dr. George A. Barnett, 28 Forest Ave., Riverside
 Dr. Robert N. Swindle, 358 East 115th Street
 Dr. Edward A. Piszczek, 737 S. Wolcott Street
 Dr. A. J. Sullivan, 7122 Euclid Avenue
 Dr. Edward G. Tatge, 636 Church Street, Evanston
 Dr. Walter O. Erxleben, 5848 Northwest Circle
 Dr. Lawrence F. Draper, 9017 S. Leavitt Street

Dr. C. Otis Ritch, 55 E. Washington Street
Dr. Warren H. Cole, 1853 W. Polk Street
Dr. Michael J. Kutza, 1400 North Long Ave.
Dr. John L. Keeley, 30 N. Michigan Ave.
Dr. Bernard P. Conway, 811 East 49th Street
Dr. Hugo Long, 1536 Vincennes Ave., Chicago Heights
Dr. W. I. Sachtleben, 9768 Winston Avenue
Dr. Harold P. Sullivan, 4458 W. Madison Street

STREPTOMYCIN IN TREATMENT OF TUBERCULOSIS

Expanded studies at Northwestern University medical school, to aid in the determination of the effectiveness of streptomycin in treatment of tuberculosis, will be supported this year by a grant of \$25,000 just received by the school from the United States Public Health Service.

The grant gives recognition to more than three years of experimental research on the therapy of tuberculosis which has been carried on at Northwestern under the direction of Dr. Guy P. Youmans, associate professor of bacteriology. Of the many agents thus far investigated, the antibiotic, streptomycin, shows the greatest promise. This antibiotic acts by preventing growth of the tubercle bacillus within the body.

Although much progress has been made toward the control of tuberculosis, the disease still accounts for more than 50,000 deaths a year in the United States alone. "If streptomycin, or any other therapeutic agent, can be shown to be

of specific value in the treatment of tuberculosis, a great step forward will have been taken to diminish this toll," Dr. Youmans declared. "We hope, through our research, to help in the evaluation of the role of streptomycin in the treatment of tuberculosis."

The work will be part of a program sponsored by the National Tuberculosis Association and the American Trudeau Society, the clinical branch of the former organization, and the United States Public Health Service. The research at Northwestern medical school will be centered in studies of the use of the antibiotic in experimental tubercular infections and the effect of streptomycin and other agents on the growth of tubercle bacilli.

The laboratory at Northwestern will be one of three centers in the United States set up to evaluate, standardize and correlate data supplied by clinical investigators working in hospitals designated by the two tuberculosis associations. Proposed studies will aid such investigators in determining the sensitivity to streptomycin of strains of tubercle bacilli isolated from hospital patients.

Dr. Youmans, who is chairman of the laboratory subcommittee on streptomycin of the American Trudeau Association, will be director of the Northwestern research project. Working with him will be two bacteriologists and four assistants.



ARREST TUMOR OF BONE MARROW

Two new English drugs, used in a New York hospital, have proved effective in checking multiple myeloma, a malignant tumor of the bone marrow.

No effective form of therapy was known for this highly fatal disease until these drugs — Stilbamidine and Pentamidine — demonstrated their tumor controlling and pain relieving properties.

Writing in the January 18 issue of *The Journal of the American Medical Association*, Isidore Snapper, M.D., from the Second Medical Service of the Mount Sinai Hospital, New York, reviews the treatment of 15 patients.

He states that "all these patients were suffering excruciating pains when the treatment was begun. Thirteen were immobilized in bed. All 15 improved considerably as far as the pain itself was concerned. Eleven could walk at the time of discharge from the hospital."

Dr. Snapper points out that the "treatment merely checks the disease and does not cure it."

This disease, usually associated with anemia, causes neuralgic pains. Later, painful swellings appear on the ribs and skull and spontaneous fractures may occur.

Injections into the veins of Stilbamidine proved successful in the majority of patients. However, in two who were not helped by Stilbamidine, Pentamidine was effective.

PROGRAM
OF THE

*One Hundred Seventh Annual Meeting
Illinois State Medical Society*



CHICAGO, ILLINOIS

PALMER HOUSE

MAY 12, 13, 14, 1947

Headquarters for Annual Meeting



THE PALMER HOUSE

All sessions of the Annual Meeting as well as the annual dinner will be held in this famous hotel. In the center of Chicago's downtown, it is convenient to shops and theatres.

Program For The Annual Meeting

The official printed program will be given to all registrants at the meeting as has been the custom in this society for many years.

THE 1947 ORATIONS

Dr. Alfred Blalock, The Johns Hopkins Hospital, Baltimore, Maryland, will deliver the Oration in Surgery on Monday morning, May 12, at 10:50 o'clock in the Grand Ballroom. He has chosen for his subject, "The Surgical Treatment of Congenital Cardiovascular Defects".

★

On Wednesday afternoon, May 14th at 2:00 o'clock, Dr. Herman Hilleboe, the Assistant Surgeon General, United States Public Health Service, Washington, D. C., will present the Oration in Medicine. His subject is "The United States Public Health Service and the Private Practice of Medicine."

★

The officers of the Illinois State Medical Society offer the membership both these speakers with a feeling of pride, and a knowledge that they will both bring before our physicians papers of outstanding worth. We feel that they will furnish a definite "highlight" for the opening and closing days of our meeting.

OTHER OUT OF STATE SPEAKERS

For the first time this year, each Section of the Illinois State Medical Society will have the privilege of inviting an out-of-state physician in each specialty represented. These men may appear before the Joint Sessions of all Sections, or may deliver more highly specialized addresses before the Section itself. In some cases, the men so invited have agreed to speak twice — once before the Section and again before the Joint Sessions.

Radiology has invited Dr. Fred Hodges, Ann Arbor, Michigan, as their guest speaker. He will address the Joint Sessions on "X-Ray Demonstrable Lesions of the Colon", and then will speak again before the Section on Radiology having as his subject: "Cerebral Angiography."

Surgery will have as its guest Dr. D. W. Gordon Murray of Toronto, Ontario. Doctor Murray's subject is yet to be announced.

Bayard Carter of Durham, North Carolina, will be the guest of the Section on Obstetrics and Gynecology and will present two papers, one before the Joint Sessions, and the other at the Section meeting. His subject will be "Mycotic Infection".

Other guest speakers include E. T. Bell, Minneapolis, Franklin H. Top of Detroit, Michigan, R. L. Sensenich of South Bend, Indiana, A. B. Baker of Minneapolis, F. Bruce Fralick of Ann Arbor, Michigan.

PRESIDENT'S ADDRESS

The president of the Illinois State Medical Society will give his annual address before the General Session of the Society in the Grand Ballroom at 11:30 o'clock Monday morning, May 12, 1947.

Dr. Robert S. Berghoff has chosen as his subject "The Current Progress of Medicine."

Scientific Programs

General Assembly

MONDAY MORNING, MAY 12, 1947

Grand Ballroom

- 9:00 — Opening of the 1947 annual meeting by the President — Robert S. Berghoff
- 9:10 — "Oral Penicillin in the Treatment of Pneumococcal Pneumonia"
Italo F. Volini, Chicago
- 9:30 — "Early Diagnosis of Carcinoma of the Lungs"
Jerome R. Head and R. H. Meade, Jr., Chicago
- 9:50 — "The Relation of Rh Antibodies to the Outcome of Pregnancy"
Israel Davidsohn, Chicago
- 10:10 — "Enterogastrone in Peptic Ulcer"
Arthur J. Atkinson, Chicago
- 10:30 — "Section of the Vagus Nerve in Treatment of Peptic Ulcer"
Lester R. Dragstedt, Chicago
- 10:50 — ORATION IN SURGERY: "The Surgical Treatment of Congenital Cardiovascular Defects"
ALFRED BLALOCK, The Johns Hopkins Hospital, Baltimore, Maryland
- 11:30 — PRESIDENT'S ADDRESS: "The Current Progress of Medicine"
ROBERT S. BERGHOFF, President, Illinois State Medical Society, Chicago

MONDAY AFTERNOON, MAY 12, 1947

Grand Ballroom

- 1:30 — "Diagnosis and Treatment of Bulbar Poliomyelitis"
A. B. BAKER, University of Minnesota, Minneapolis
(Speaking under the auspices of the National Foundation)
- 2:00 — "Anti Coagulants in the Treatment of Thrombophlebitis and Phlebothrombosis"
D. W. GORDON MURRAY, Toronto, Ontario
(Guest speaker invited by the Section on Surgery)
- 2:30 — "Mycotic Infections"
BAYARD CARTER, Durham, North Carolina
(Guest speaker invited by the Section on Obstetrics and Gynecology)
- 3:00 — RECESS — to view scientific and technical exhibits
- 3:20 — "Reconstruction of the Common Bile Duct"
H. P. McCuiston and Edward V. Ferguson, Alton
- 3:40 — "Therapy of Allergies: Facts and Fancies"
Samuel M. Feinberg, Chicago
- 4:00 — "Are We Tending to Overemphasize Specialization?"
R. L. SENSENICH, South Bend, Indiana
(Guest speaker invited by the Section on Medicine)
- 4:20 — "The Surgical Management of Continuity Metastasis"
F. E. Hambrecht and E. A. Crowell, Galesburg

Section on Public Health & Hygiene

Richard F. Boyd, Chairman Springfield
Robert Dessent, Secretary Chicago

TUESDAY MORNING, MAY 13, 1947

Rooms 15 & 16

- 9:00 — "Mental Growth and Health"
Bert I. Beverly, Chicago
9:20 — "Mass X-Ray Examinations Using Miniature Films"
Clifton Hall, Springfield
9:40 — Subject to be announced
FRANKLIN H. TOP, Detroit, Michigan
(Guest invited by the Section on Public Health & Hygiene)
10:10 — "Immunization Procedures"
Jerome J. Sievers, Springfield

Section on Pediatrics

G. N. Krost, Chairman Chicago
F. H. Mauer, Secretary Peoria

TUESDAY MORNING, MAY 13, 1947

Room 17

- 9:00 — "Congenital Cardiovascular Anomalies — Their Diagnosis and Surgical Treatment"
Stanley Gibson, Willis Potts and Sidney Smith, Chicago

Section on Obstetrics & Gynecology

E. N. Nash, Chairman Galesburg
Harold Miller, Secretary Chicago

TUESDAY MORNING, MAY 13, 1947

Room 18

- 9:00 — "Conservative Obstetrics"
E. E. Davis, Avon
SYMPOSIUM ON PLACENTA PRAEVA
9:20 — Frederick H. Falls, Chicago
9:40 — Herbert E. Schmitz, Chicago
10:00 — F. BAYARD CARTER, Durham, North Carolina
(Guest invited by Section on Obstetrics and Gynecology)
10:40 — "Post-Partum Hemorrhage: Prevention and Treatment"
M. Edward Davis, Chicago
11:00 — "Ovarian Thecoma: Case Reports with Contrasting Symptomatology"
Speaker: Robert J. Patton, Springfield
Authors: Charles L. Patton and Robert J. Patton

Section on Pathology

John F. Sheehan, Chairman Chicago
George Milles, Secretary Chicago

TUESDAY MORNING, MAY 13, 1947

Room 8

- 8:30 — Business meeting of the Section on Pathology and the Illinois Society of Pathologists.
10:00 — "Organization of a Blood Bank"
S. O. Levinson, Director
Serum Center at Michael Reese Hospital, Chicago
10:20 — "Problems in Photometric Analysis"
W. S. Hoffman, Director of Biochemistry
Cook County Hospital, Chicago
10:40 — "Biologic Assay of the Antibiotics"
E. E. Vicher and S. A. Levinson, Research and Educational Hospital, University of Illinois, Chicago

Section on Medicine

W. H. Newcomb, Chairman Jacksonville
Theodore R. VanDellen, Secretary Chicago

TUESDAY AFTERNOON, MAY 13, 1947

Grand Ballroom

- 1:30 — "Varying Indications in the Treatment of Post-Infarctive Heart Disease"
Walter H. Nadler, Chicago
1:50 — "The Treatment of Migraine"
John J. Westra, Urbana
2:10 — "The Surgical Treatment of Psychoses"
Erich Leibert and Loyal Davis, Chicago
2:30 — "Subacute Bacterial Endocarditis Successfully Treated with Penicillin"
Edward W. Cannady, East St. Louis
2:50 — RECESS
3:10 — "Meningococcal Infections"
Walter Whitaker, Quincy
3:30 — "Value of the Quantitative Fecal Urobilinogen in the Diagnosis of the Anemias"
Bertha L. Isaacs and Howard L. Alt, Chicago
3:50 — "A Case Study of Nickel Carbonyl Poisoning"
William K. Hite, Peoria
4:10 — "Present Management of Thyrotoxicosis"
Frank Deneen, Bloomington

Section on Surgery

J. B. Moore, Chairman Benton
Harry A. Oberhelman, Secretary Chicago

TUESDAY AFTERNOON, MAY 13, 1947

Room 14

- Joint Meeting with the Central States, and the Chicago Society of Industrial Medicine and Surgery
1:30 — "The Timing of Plastic Repair in Congenital Anomalies"
Wayne B. Slaughter, Chicago
1:50 — "Acute Injuries of the Hand"
Harvey S. Allen, Chicago
2:10 — "The Indications for Lumbar Sympathectomy"
Geza de Takats, Chicago
2:30 — "Early Ambulation in the Surgical Patient"
Arkell M. Vaughn, Chicago

- 2:50 — "The More Common Causes of Failure in Treatment of Varicose Veins"
John R. Merriman, Chicago
- 3:10 — "Diagnosis and Treatment of Head Injuries"
Harold C. Voris, Chicago
- 3:30 — "Repair of Major Bone Defects with Massive Bone Grafts"
Carlo Scuderi, Chicago
- 3:50 — "Vesicovaginal Fistula"
J. E. Bellas, Peoria

Section on Radiology

Frank L. Hussey, Chairman Chicago
Cesare Gianturco, Secretary Urbana

TUESDAY AFTERNOON, MAY 13, 1947

Room 9

- 1:30 — "Cerebral Angiography"
FRED J. HODGES, Ann Arbor, Michigan
(Guest invited by Section on Radiology)
- 2:00 — "Arthograms"
Hampar Kelikian, Chicago
Discussed by E. Kenneth Lewis, Chicago
- 2:20 — "Chronic Amebiasis of the Cecum"
Raymond B. White, Chicago
- 2:40 — RECESS
- 3:00 — Film Reading Session:
Fred H. Decker, Peoria, two cases
William DeHollander, Springfield, two cases
Edwin L. Rypins, Bloomington, two cases
Edward G. King, Springfield, two cases
Roswell T. Pettit, Ottawa, one case
Peter Kapo, Ottawa, one case

Section on Obstetrics & Gynecology

E. N. Nash, Chairman Galesburg
Harold Miller, Secretary Chicago

In Joint Session with the Section on Pediatrics

TUESDAY AFTERNOON, MAY 13, 1947

Room 18

- 2:00 — "Maternal Welfare"
Luella E. Nadelhoffer, Chicago
- 2:20 — "Stillbirths and Neonatal Deaths" — Statistical Data
Edith Potter and William Jack, Chicago
- 2:40 — "The Clinical Application of the Rh Factor"
Eugene T. McEnery, Chicago

General Assembly

WEDNESDAY MORNING, MAY 14, 1947

Grand Ballroom

- 8:30 — "Symposium on Practical Laboratory Tests:
1. Differential Diagnosis of Liver Disease
Coye C. Mason, Chicago
2. Differential Diagnosis of Hematological Disorders
Steven O. Schwartz, Chicago
3. Differential Diagnosis of Chronic Pulmonary Disease
H. C. Sweany and J. R. Thompson, Chicago
- 9:30 — RECESS

- 9:50 — "X-Ray Demonstrable Lesions of the Colon"
FRED J. HODGES, Ann Arbor, Michigan
(Guest invited by the Section on Radiology)
- 10:20 — "Treatment of Carcinoma of the Recto-Sigmoid Colon with Question of Preservation of the Sphincters"
Walter Maddock, Chicago
- 10:40 — Subject to be announced
FRANKLIN H. TOP, Detroit, Michigan
(Guest invited by the Section on Public Health & Hygiene)
- 11:10 — "Protein Metabolism in the Surgical Patient"
Karl A. Meyer, Chicago
- 11:30 — "Pathological Anatomy of Diabetes"
E. T. BELL, Professor of Pathology
University of Minnesota, Minneapolis
(Guest invited by the Section on Pathology)

WEDNESDAY AFTERNOON, MAY 14, 1947

Grand Ballroom

- 1:30 — Subject to be announced
J. BRUCE FRALICK, Professor of Ophthalmology,
University of Michigan, Ann Arbor
(Guest invited by the Section on Eye, Ear, Nose & Throat)
- 2:00 — ORATION IN MEDICINE — "The United States Public Health Service and the Private Practice of Medicine"
HERMAN HILLEBOE, Assistant Surgeon General
U.S.P.H.S., Washington, D.C.
- 2:40 — RECESS
- 3:00 — "Gall Bladder Disease and Hepatic Complications"
Warren H. Cole, Chicago
- 3:20 — "New Drugs of Value in the Treatment of Epilepsy"
Frederic A. Gibbs, Chicago
- 3:40 — "The Diagnosis of Pulmonary Tuberculosis"
George H. Vernon, Springfield
- 4:00 — "Pulmonary Complications of Foreign Bodies in the Bronchi"
Paul H. Holinger, Chicago
- 4:20 — "Diagnosis and Treatment of Common Fractures"
Harold A. Sofield, Chicago
- 4:40 — "The Present Status of Penicillin in Dermatology"
N. C. Barwasser, Moline

Section on Eye, Ear, Nose & Throat

Hanley F. Ford, Chairman Champaign
Paul H. Holinger, Secretary Chicago

MONDAY MORNING, MAY 12, 1947

Crystal Room

- 9:00 — "Kodachrome Clinic of Interesting Eye Conditions"
Roy Riser, Park Ridge
- 9:25 — "Diagnosis and Treatment of External Otitis"
Paul Campbell, Chicago
- 9:50 — "Rhinoplasty Combined with Reconstruction of Deformed Chin"
Oscar Becker, Chicago
Discussed by Francis L. Lederer, Chicago
- 10:15 — "Osteomyelitis of the Face and the Skull"
Hans Brunner, Chicago

- 10:40 — "Polyps of the Vocal Chord"
Stanton Friedberg, Chicago
Discussed by Paul H. Holinger, Chicago
11:05 — "Newer Concepts in Surgery of the Nasal
Septum"
SAMUEL FOMON, New York
12:00 — Business Meeting

MONDAY AFTERNOON, MAY 12, 1947

Crystal Room

- 2:00 — Demonstration Course:
"Rhinoplasty"
SAMUEL FOMON, New York

MONDAY EVENING, MAY 12, 1947

Crystal Room

- 6:00 — Banquet of Section on Eye, Ear, Nose &
Throat
Colored Movies of Mexico — Prof. A. L. Whiting,
Champaign

TUESDAY MORNING, MAY 13, 1947

Crystal Room

- 9:00 — Penicillin in Otolaryngology"
O. E. Van Alyea, Chicago
9:25 — "Management of Bulbar Poliomyelitis"
Thomas Galloway, Evanston
9:50 — "Management of Malignancy of Maxillary
Sinus"
Maurice Snitman and Arnold Grossman, Chicago
Discussed by Thomas Galloway, Evanston
10:15 — "Allergy and Retrobulbar Neuritis — With
Case Report"
Otto F. Seidelman, Chicago
10:40 — "Retinal Detachment"
Louis Bothman, Chicago
11:05 —
F. BRUCE FRALICK, Ann Arbor, Michigan
12:00 — Business Meeting

TUESDAY AFTERNOON, MAY 13, 1947

Crystal Room

- 2:00 — Demonstration Course: "Ophthalmology"
F. BRUCE FRALICK, Professor of Ophthalmology
University of Michigan, Ann Arbor, Michigan



Meetings of Special Groups, Luncheons, Dinners

House of Delegates

MONDAY AFTERNOON, May 12, 1947

3:00 p.m. The first meeting of the House of Delegates will be called to order by the President for Reports of Officers, Councilors, Committees, Appointment of Reference Committees, Introduction of Resolutions, and for the transaction of other business which may come before the House.

WEDNESDAY MORNING, May 14, 1947

9:00 a.m. The second meeting of the House of Delegates will be called to order by the President for the Election of Officers, Councilors, Committees, Delegates and Alternates to the American Medical Association, Reports of Reference Committees and action on same, action on Resolutions, and for the transaction of other business to come before the House.

The Annual Dinner

**TUESDAY EVENING, May 13, 1947
GRAND BALLROOM — 7:00 o'clock**

On Tuesday evening, May 13, the Annual Dinner will be held. As has been the custom for many years all past presidents of the Society will be the honored guests. The dinner this year is to honor Dr. Robert

S. Berghoff, Chicago, retiring president of the Society.

The main address of the evening will be given by Father Alphonse M. Schwitalla, S.J., Ph.D., Dean of the St. Louis University School of Medicine, St. Louis, Missouri.

Tickets will be on sale at the Registration Headquarters and will be available from members of the Annual Dinner Committee of which Dr. Warren W. Furey is the chairman.

ILLINOIS CHAPTER AMERICAN COLLEGE OF CHEST PHYSICIANS

SUNDAY AFTERNOON, May 11, 1947

The Illinois Chapter of the American College of Chest Physicians will have a meeting on Sunday afternoon, May 11, 1947, at the Palmer House, just preceding the annual meeting of the Illinois State Medical Society.

In recent years the Illinois Chapter has been instrumental in providing papers regarding diseases of the chest in the various sections of the Illinois State Society meeting, which have been very well received. The Society is only too glad to cooperate with this group of physicians, and will assist them in any way possible to make their Sunday meeting a success.

VETERANS SERVICE DINNER**MONDAY EVENING, MAY 12, 1947**

Dr. E. H. Blair, Chairman of the Veterans' Service Committee, has planned for the largest annual Veterans' Service Dinner ever held during a state meeting. Since this is the first year the Society has met since the close of the war, outstanding speakers of national prominence have been contacted.

The following program has been arranged:

"The Attitudes of the Nazi SS Physicians"

Andrew C. Ivy, Chicago

Introduced by George F. Lull, Chicago

"Army Medical Problems in the National Defense Program"

Colonel William Stone, Office of the Surgeon General
U. S. Army

Introduced by M. Herbert Barker, Chicago

SECRETARIES' CONFERENCE**MONDAY EVENING, May 12, 1947**

On Monday evening, May 12, the annual Secretaries' Conference will be held. Dr. Willard O. Thompson, Chicago, is the secretary this year in charge of the program. He has planned a Symposium dealing with the problems of the General Practitioner and will present three speakers.

The program will be as follows:

5:30 p.m. Cocktails

6:30 p.m. Dinner

8:00 p.m. Scientific Program:

Morris Fishbein, Editor of the Journal of the American Medical Association, Chicago: "The Problems of the General Practitioner"

R. L. Sensenich, Chairman of the Board of Trustees, American Medical Association, South Bend, Indiana: "The General Practitioner and the Specialist"

Walter L. Bierring, Past-President of the American Medical Association, Des Moines, Iowa: "The Certification of the General Practitioner"

**PHYSICIANS' ASSOCIATION
DEPARTMENT OF PUBLIC WELFARE
STATE OF ILLINOIS**

Tuesday morning, May 13, 1947

9: a.m.

"Constitutional, Emotional, and Cultural Deviations
Producing Mental Deficiency"

Hans Neuer, Lincoln

"Phenylpyruvica Oligophrenia"

Herman Josephy, Chicago

"Clinical Symptoms and Development of Surviving
Erythroblastoma with 'Kernicterus'"

Lottie Lande, Dixon

"Studies on Patients Improving Following Pre-
frontal Lobotomy"

David Brown, Elgin

Myrtle Astrachan, Elgin

"Tuberculosis in Mentally Ill Patients"

Maxim Pollak, Peoria

"Merits of Ambulatory Shock at the Chicago Com-
munity Clinic"

H. Roy Johnson, Chicago Community Clinic

The newly organized Illinois State Obstetrical and Gynecological Society will meet with the committee, and members of this group are welcome at the luncheon.

**WOMAN'S AUXILIARY
TO THE**

ILLINOIS STATE MEDICAL SOCIETY

The eighteenth annual meeting of the Woman's Auxiliary to the Illinois State Medical Society will be held in Chicago at the Congress Hotel, May 12th and 13th.

The wives of all members of the Illinois State Medical Society are cordially invited to attend the sessions and the social events. The reception committee will welcome all members and guests and see that they become acquainted.

Preliminary Program

Monday, May 12, Congress Hotel

9:00 A.M. Registration—Florentine Lounge, 3rd Floor

10:00 A.M. Pre-Convention Board Meeting—Parlor A,
3rd Floor

1:30 P.M. Opening General Meeting — Florentine
Room

6:00 P.M. Dinner—Florentine Room

Tuesday, May 13

9:00 A.M. Registration

9:45 A.M. General Meeting

12:30 P.M. President's Luncheon—Grand Ball Room,
2nd Floor

3:00 P.M. Post-Convention Board Meeting, Parlor A,
3rd Floor

Make hotel reservations early by writing Mr. Daniel Amico, Congress Hotel, Chicago, Illinois, and be sure to mention the Auxiliary.

MEDICAL WOMEN'S ASSOCIATION**TUESDAY MORNING, MAY 13, 1947**

At 8:00 a.m. Tuesday morning, May 13th, the women physician present at the annual meeting of the Illinois State Medical Society will be the guests of the society at a complimentary breakfast. This has been an annual affair for the past few years, and has become a very popular gathering.

Dr. Marie Wessels, 720 N. Michigan Avenue, Chicago, is in charge of the meeting and will provide an interesting program for the women physicians. Dr. Helen V. McLean, psychiatrist, will speak on "Psychic Factors in Racial Tension."

**FIFTY YEAR CLUB LUNCHEON
WEDNESDAY NOON, MAY 14, 1947**

Invitations to attend the Fifty Year Club Luncheon, a complimentary affair given by the Illinois State Medical Society to honor members of this exclusive group, will be sent to all members by the Chairman, Dr. Andy Hall of Mt. Vernon.

The luncheon will be held Wednesday, May 14th in the Crystal Room at noon.

There are some 300 members, and notices will be sent to each urging that they attend and come prepared to give an account of the most interesting or most amusing case encountered in their practice — this not to exceed five minutes.

These short talks by each guest should provide an unusual program of interest to all privileged to attend.

MATERNAL WELFARE LUNCHEON

The Maternal Welfare Committee of the Illinois State Medical Society will hold its annual luncheon meeting on Monday noon, May 12th at 12:15 o'clock.

The newly organized Illinois State Obstetrical and Gynecological Society will meet with the committee and members of this group are welcome at the luncheon.

Arrangements are being made by the committee chairman, Dr. Frederick H. Falls.

NATIONAL BOARD OF MEDICAL EXAMINERS

There will be a luncheon for the diplomates of the National Board of Medical Examiners on Wednesday, May 14th, at 12:30 at the Palmer House.

All those wishing to attend this luncheon should communicate with Dr. W. O. Thompson, 700 North Michigan Avenue, Chicago.

There are several important matters to discuss and it is hoped that as many diplomates as possible will attend.

The program planned for this luncheon will be: "The National Board of Medical Examiners and the General Practitioner"

Mr. E. S. Elwood, Executive Secretary of the National Board

"The Problem of Certification of the General Practitioner"

Walter L. Bierring, Des Moines, Iowa

JOINT PROGRAM — THE CENTRAL STATES, AND THE CHICAGO SOCIETY OF INDUSTRIAL MEDICINE AND SURGERY

The Central States and The Chicago Society of Industrial Medicine and Surgery will have their annual meeting with the Illinois State Medical Society again this year, and will join with our Section on Surgery for a Joint Session on Tuesday afternoon, May 13th.

Their morning program is as follows:

TUESDAY MORNING, May 13, 1947

9:30 a.m. "Fungus Infection of Skin in Industry"
J. H. Mitchell, Chicago

10:00 a.m. "Diagnosis and Treatment of Low Back Pain"

E. L. Compere, Chicago

10:30 a.m. "The Cardiac Case in Industry"
H. H. Steinberg, Chicago

11:00 a.m. "Vascular Disorders of the Lower Extremity"

M. G. Flannery, Chicago

11:30 a.m. "Plastic Reconstruction of the Thumb"

Paul W. Greeley, Chicago

ALUMNI LUNCHEONS

UNIVERSITY OF ILLINOIS

The Medical Alumni Association of the University of Illinois College of Medicine will hold an annual luncheon at the Palmer House on Tuesday noon, May 13th, at 12:00 o'clock. President George Dinsmore Stoddard, Dr. A. C. Ivy, Vice-President, in charge of Chicago Professional Colleges and Dr. John B. Youmans, Dean of the College of Medicine, will be guests at this meeting.

The cost per plate will be \$3.50, and reservations are to be made with Dr. Michael H. Streicher, Secretary, 1853 West Polk Street, Chicago.

LOYOLA UNIVERSITY

On Wednesday noon, May 14th, the Alumni Association of Loyola University School of Medicine will have its annual meeting and election of officers at the Palmer House during the annual meeting of the Illinois State Medical Society.

The meeting is in charge of Rev. G. G. Grant, S.J., Executive Secretary of the Alumni Association, Loyola University School of Medicine, Chicago 26, and reservations may be made through him.

Luncheon will be served at 12:15 o'clock, and the price per plate will be \$2.00.

Officers of the Alumni Association are Dr. Francis J. Gerty, head of the Department of Neuropsychiatry at the University of Illinois, out-going President; Dr. Robert E. Lee of the Department of Internal Medicine, at Loyola, President-Elect, and Dr. George A. Hellmuth of the Loyola Faculty, Secretary-Treasurer.



Notes On Scientific Exhibits

John A. Mart, Chairman and Director of Exhibits ..
Howard L. Alt Chicago
C. C. Mason Chicago
E. E. Nystrom Peoria

The following exhibits have been accepted for the 1947 annual meeting of the Illinois State Medical Society.

HEMATOLOGY

The exhibit will consist of three parts:

(1) Normal bone marrow — there will be ten kodachromes arranged in a light box and ten color prints of the same.

(2) Anemias

(3) Leukemia — bone marrow and blood pictures.

Carroll L. Birch and Louis R. Limarzi, University of Illinois, Department of Medicine, Chicago.

EARLY MIDWESTERN MEDICINE

The plan is to exhibit books, pictures, and museum pieces dealing with early midwestern medicine; particularly material on Drake, McDowell and Beaumont.

Georgia Price and Elizabeth Carr, Northwestern University Medical School Library, Chicago.

INTRAMEDULLARY ONLAY BONE GRAFTS FOR SHATTERING FRACTURE DEFECTS

The exhibit will consist of:

(a) Two fractured long bones with intramedullary only graft repair, mounted on stands.

(b) Twenty-four transparencies of X-Rays mounted in glass size 5" x 7", showing preoperative and post-operative x-ray pictures and the final osteosynthesis.

Frank G. Murphy, Department of Orthopaedic Surgery, Cook County Hospital, Chicago

VARICOSE VEINS AND VENOUS THROMBOSIS OF THE LOWER EXTREMITIES

The exhibit will consider various problems of varicose veins and venous thrombosis of the lower extremities.

Anthony M. Barone, St. Elizabeths' Hospital, Chicago

CANCER DETECTION CENTERS

The exhibit will consist of posters showing organization et cetera of detecting centers.

Bowman C. Crowell, American College of Surgeons, Chicago

FENESTRATION OPERATION IMPROVED TECHNIC BASED ON EXPERIMENTAL STUDIES

The exhibit will include:

1. A series of wax models showing anatomical and surgical aspects of fenestration.
2. Criteria for selection of cases as to suitability for surgery.
3. Summary of results in over 1,400 cases.
4. Photomicrographs showing animal experimental studies that led to the improved technic.

George E. Shambaugh, Jr., Arthur L. Juers and C. W. Whitaker, Northwestern University Medical School and Wesley Memorial Hospital, Chicago

THE ROLE OF ANIMALS IN MEDICAL PROGRESS

The principal attraction of the exhibit will be a dog used in chronic experiments of considerable significance. The background will be five large panels portraying the role of experimental animals in the development of medical knowledge and skill. Publications of the National Society for Medical Research will be displayed and distributed.

A. J. Carlson and A. C. Ivy, National Society for Medical Research, Chicago

PEDIATRIC ENDOCRINOPATHIES

The exhibit will consist of clinical observations demonstrating disturbances of weight, stature and the sexual apparatus encountered in pediatric practice. In obesity emphasis is placed on the correction taking place in the pubertal period without the aid of glandular products. In the dwarfish group interesting case histories are presented; the effect of growth hormone is noted. In the sexual group the part played by the hypothalamic-hypophyseal apparatus in precocity is stressed.

I. P. Bronstein, University of Illinois College of Medicine, Department of Pediatrics, Chicago

LIVER FUNCTION AND LIVER STRUCTURE: CLINICAL APPLICATION

Based on clinical observation, laboratory study and histopathologic examination of needle or surgical biopsy and necropsy specimens of a large series of patients with liver disease, a correlation between structural and functional changes of the liver is demonstrated.

Hans Popper, Frederick Steigmann, Karl A. Meyer, Donald D. Kozoll and Murray Franklin, The Hektoen Institute for Medical Research of the Cook County Hospital, Chicago.

ANATOMICAL SPECIMENS — MOUNTED IN PLASTICS

Examples of different kinds of anatomical preparations are shown embedded in Castolite or in Plexiglass: (1) Corrosion specimens in metal, vinylite or celluloid; (2) Cleared specimens of injections, of alizarinated ossification centers, etc.; (3) Dried specimens; (4) Wet specimens of cross sections, dissections, organs, brain sections, embryos, etc.; (5) stained sections of entire organs; (6) wax model of cells.

Otto F. Kampmeier and Thomas N. Haviland, University of Illinois College of Medicine, Chicago.

DEMONSTRATION OF FRESH PATHOLOGICAL SPECIMENS

Illinois Society of Pathologists, Chicago.

STANDARD TECHNIQUES IN AEROBIOLOGY AS APPLIED TO ALLERGY

The exhibit covers the essential advances in the study of the dispersal of aero-allergens during the past century. Various pieces of recently developed or adapted apparatus are shown including the standard exposure device adopted in 1944 by the National Pollen Survey Committee of the American Academy of Allergy. Methods of air sampling, the counting of pollens and fungus spores, the interpolation of gravity slide figures and graphic presentation of statistics are illustrated and demonstrated.

Oren C. Durham, Abbott Laboratories, North Chicago.

SYNKINETIC OVERACTION OF THE INFERIOR OBLIQUE MUSCLE

Overaction of the inferior oblique muscle is known to result from peripheral palsies of the contralateral superior rectus or of the homolateral superior oblique. Rarely, however, are such overactions thought to be associated with supranuclear impulses not associated with peripheral disturbances.

This exhibit demonstrates the various causes of such synkinetic overactions of the inferior oblique muscle.

George P. Guibor, Associate Ophthalmologist at Children's Memorial Hospital, Chicago.

METHODS OF REPAIR IN PLASTIC SURGERY

(a) 500 to 1000 Kodachromes; (b) 50 life size wax moulages (exact reproductions) of injuries and repairs, (c) tissue specimens, photographs and movies.

John F. Pick, University of Illinois College of Medicine, Chicago.

THE DOCTOR AND HIS SOCIETY

Left wing of booth to be devoted to structure of organization. Backboard will cover major educational and public relations activities. Right wing will depict results and material exemplifying the society's efforts in protecting health interests of Illinois.

Educational Committee, Illinois State Medical Society.

THE DIFFERENTIAL DIAGNOSIS IN TUBERCULOSIS AND NONTUBERCULOUS CONDITIONS ENCOUNTERED IN THE SANITARIUM

Exhibit consists of three illuminated cabinets demonstrating, by roentgenograms and pathologic specimens, disease of the lungs, tuberculous and non-tuberculous, and their treatments.

K. J. Henrichsen, Municipal Tuberculosis Sanitarium, Chicago.

PRIMARY TUBERCULOSIS: A Clinical Study and X-Ray Study of 115 Cases.

This exhibit consists of two parts: One is an artistic and well integrated group of charts, placards and pictures illustrating (1) the efficacy of the Vollmer Patch Test (2) the clinical and laboratory findings in primary tuberculosis.

The second part is a group of serial X-Ray films showing the progress of typical primary lesions from the early stages to calcification.

Alfred D. Biggs, Northwestern University Medical School and St. Luke's Hospital, Chicago.

CARCINOMA OF THE UTERUS

Carcinoma of the uterus is depicted in relation to its etiology, pathology, diagnosis and treatment. Lettered charts, drawings, sculptures, photomicrographs are used to show the various lesions and their complications. Instruments and apparatus for diagnostic procedures are presented.

Frederick H. Falls and Miss Charlotte S. Holt, University of Illinois College of Medicine and Illinois State Department of Public Health, Chicago.

SURGERY OF THE NECK

This exhibit consists of photographic illustrations of surgical approaches to the midline viscera, lateral neck region and sub-maxillary triangle. The various stages of layer dissection form the important feature of this presentation.

Maurice F. Snitman, University of Illinois College of Medicine, Department of Otolaryngology, Chicago.

HIATUS HERNIA

Hiatus hernia with an outline of the symptoms, diagnostic features, and treatment presented in chart form. A review of eight cases presenting the clinical features and two X-Rays of each.

R. J. Parker, W. R. Darnall, M. J. Schirber and J. R. Hines, Department of Medicine, St. Joseph Hospital, Chicago.

DISEASE OF THE NAILS (Dermatological Aspects)

Disease of the nails, both from dermatological and systemic syndromes present at times. Difficult clinical interpretations. Posters, photographs, drawings and moulages of numerous diseases are presented to aid in a more correct delineation.

Cleveland J. White, R. C. Ranquist, Henry S. Cambridge and Robert H. Harris, Department of Dermatology, Loyola University School of Medicine, Chicago.

RAPID TREATMENT FACILITIES FOR EARLY SYPHILIS

Procedures and treatment of early syphilis as used by downstate Department of Public Welfare.

Illinois Department of Public Health, Division of Venereal Disease Control, Leonard M. Schuman.

STUDIES ON AIR STERILIZATION AND CONTROL OF CROSS INFECTION

Exhibit will deal with recently developed methods of air disinfection by the use of Tryethylene-glycol and its application.

Edward Biggs, Fred Holmes and William P. Daines of Northwestern University Medical School; and Professor B. H. Jennings of Northwestern University Technological Institute, Chicago.

RESUSCITATION FROM ASPHYXIA

The results of controlled experiments designed to determine the best method for resuscitation from carbon monoxide and obstructive asphyxia will be presented. Evidence supporting such statements as the following will be presented: The heart is the critical organ in relation to the immediate survival and the brain in relation to the occurrence of significant sequelae following resuscitation.

The incidence of neurological sequelae is related to the degree and duration of the anoxia. The percentage of immediate survivals and the incidence of neurological sequelae is the same whether 100% oxygen or 7% carbonage is used. The important point in treating asphyxia is to oxygenate the blood as quickly as possible in order to revive the failing heart and to stop the deleterious effect of anoxia on the brain cells.

Henry Schwerma, W. L. Burkhardt, A. F. Thometz, A. C. Ivy, Northwestern University Medical School and University of Illinois Medical School, Chicago.

A FIVE YEAR FOLLOW-UP OF GLAUCOMAS

The exhibit is based on a follow-up study over a period of at least five years of a representative number of so-called primary glaucomas and of glaucomas secondary to cataract extraction.

Peter Kronfeld, H. I. McGarry, Illinois Eye and Ear Infirmary, University of Illinois School of Medicine, Chicago.

DISEASES OF THE FUNDUS OCULI — ORIGINAL PAINTINGS

Diseases of the fundus oculi as related to systemic diseases with special emphasis on the correlation between clinical and pathological findings.

Bertha A. Klien, Chicago.

DEPARTMENT OF PUBLIC WELFARE, State of Illinois

(1) AN INTEGRATED PROGRAM FOR THE CARE AND TREATMENT OF EPILEPSY IN ILLINOIS

This exhibit will depict the cooperation between the Department of Public Welfare and its hospitals, particularly the Dixon State Hospital and the Illinois Neuropsychiatric Institute and the various societies and agencies interested in improved care and treatment for epilepsy, with special reference to the work of the Department of Psychiatry of the University of Illinois, Division of Services for Crippled Children, the Division of Rehabilitation, The Illinois Epilepsy League, and the Junior League of Chicago.

Author: Frederick Gibbs.

(2) The middle booth of the exhibit planned for the Department of Public Welfare will contain various activities of the state mental hospitals.

Cassius Poust, Director, Department of Public Welfare.

(3) In the third division of this booth there will be a demonstration of arteriographs of the scalp.

The authors will be John Green and Roman Arana.

—These three booths will contain charts, pictures and demonstrations, and will be under the supervision of the Department of Public Welfare of the State of Illinois.—Paul Hietko, Chief Medical Officer.

ATOMIC ENERGY AND THE FUTURE OF MEDICINE

Charts to illustrate some of the basic principles and describe some of the most interesting transformations. On a table there will be a display of apparatus (Geiger counter, oscilloscope) used in detection of the presence of radioactive elements that are used as tracers.

Howard A. Carter, Frederic T. Jung, Thomas G. Hull, American Medical Association, Chicago

CUTTING OILS

An exhibit prepared in conjunction with the Section on Dermatology and Syphilology of the American Medical Association, consisting of a series of photographs mounted on panels, depicting dermatoses acquired from various industrial occupations.

Harold R. Hennessy, American Medical Association, Chicago

TEAM WORK IN CANCER DIAGNOSIS

Transparencies and diagrammatic sketches presenting problems of differential diagnosis. The efficacy of team work in the diagnosis of such common lesions as cancer of the skin, cervix, and breast is demonstrated. The method of taking adequate and correct biopsy material is graphically illustrated. Emphasis is given to selection of the site, method of removal and handling of the material.

John A. Rogers, American Cancer Society, Inc., Chicago

Notes on Technical Exhibits

ABBOTT LABORATORIES, Booth 99

You are most cordially invited to visit the entirely new exhibit prepared for this meeting. Members of the Abbott professional staff will be present and will welcome an opportunity to discuss newer developments in the antibiotic, anticonvulsant, anesthetic, allergenic, sulfonamide, hematic, hormone, vitamin and other fields.

AHLSTROM SURGICAL COMPANY, Booth 30

Ahlstrom Surgical Company, 226 East Huron Street, Chicago 11 — in the heart of the projected Chicago Medical Center — exhibits a selected line of fine SURGICAL INSTRUMENTS of the highest quality. Included are many instruments for Brain, Eye, Ear, Nose and Throat, and Plastic Surgery. Also on display are various PHYSICIANS' SUPPLY and office items.

THE ALKALOL COMPANY, Booth 51

ALKALOL — The balanced alkaline, saline solution for the treatment of mucous membranes and irritated tissues. Bland — Non-toxic — Effective. A favorite since 1896. IRRIGOL — a powder which in solution makes an aseptic slightly astringent vaginal douche. It is widely used also for colonic irrigations and as an effective rectal enema.

A. S. ALOE COMPANY, Booths 62 & 63

The Illinois representatives of the A. S. Aloe Company will welcome their friends at Booths 62 and 63 where they will have on display a representative cross section of our complete line of Surgical, Hospital, and Laboratory equipment and supplies. Featured will be a complete line of government surplus instruments available at the present time — especially selected, fully certified instruments at approximately one half the regular cost.

THE AMES COMPANY, Booth 14

Demonstrating technics for the detection of urine-sugar, albumin and occult blood.

Clinitest is a tablet method for the detection of urine-sugar. It is a copper-reduction test which develops its own heat within the test tube.

Albustest (Albumintest) is a reliable, non-poisonous, non-corrosive tablet method for the detection of protein (albumin). It does not require heat.

Hematest is a new, unique, tablet method for the detection of occult blood in feces, urine, and other body fluids. It is a reliable procedure that can be carried out quickly by the physician, public health worker or laboratory technician.

Ames representatives will be glad to discuss the therapeutic indications of the Ames Bile Acid Products, Decholin, Degalol and Cholmodin, with attending physicians.

ARMOUR LABORATORIES, Booths 94 & 95

Members of the Illinois State Medical Society are invited to visit The Armour Laboratories display in Booths 94 and 95. Our book on "Function and Malfunction of the Biliary System" is available to those members who have not as yet received their copy.

AYERST, McKENNA & HARRISON, Ltd., Booth 82

"Premarin" is a potent preparation of naturally-occurring, water-soluble equine conjugated estrogens containing sodium estrone sulphate as one of its estrogens.

"Premarin" combines a high degree of potency with convenience of administration and is well tolerated by the patient. It is supplied with the approval of the Research Institute of Endocrinology, McGill University, and is accepted by the Council of Pharmacy and Chemistry of the American Medical Association.

BECKTON, DICKINSON & COMPANY, Booth 101

Becton, Dickinson & Company will show a full line of hypodermic equipment, including several new outfits for the administration of continuous spinal and continuous caudal analgesia. Representatives will be on hand to demonstrate the use of B-D Vacutainer equipment in the new method of taking blood samples; a full line of Manometers and similar clinical thermometers will be other features of their display.

BILHUBER-KNOLL CORPORATION, Booth 64

Visit the Bilhuber-Knoll Booth 64 for information on the latest developments in their medicinal chemicals. Among those on display are: the new vasopressor Oenethyl; antispasmodic Octin; analgesic and cough sedative Dilaudid; analeptic and antianoxicant Metrazol; and the diuretics and myocardial stimulants Theocalcin and Phyllicin. These and their other dependable prescription chemicals are prescribed alone or in combination with other drugs to meet the needs of the individual patient.

Mr. Art Murbach and Mr. Basil Kidwell in charge.

THE BORDEN COMPANY, Booth 88

We invite your attention to PROTOLAC, a new especially-formulated blend of intact proteins and high protein products derived from animal and vegetable sources which is just being introduced. PROTOLAC is supplemented with choline and the amino acid cystine. PROTOLAC is indicated in high protein therapy in conditions requiring increased dietary protein of optimum nutritional value.

Likewise exhibited are our long established products for infant feeding: BIOLAC, DRYCO, MULL-SOY, MERRELL-SOULE SPECIAL MILKS, general purpose KLIM, and BETA LACTOSE.

BREWER & COMPANY, INC., Booth 17

This exhibit consists of specialties, centering around Thesodate, the original enteric-coated tablet of Theobromine Sodium Acetate, and Luasmin, a combination of Theophylline Sodium Acetate, Phenobarbital and Ephedrine for the treatment of asthma. Also, Brewer Capsules and Ampuls, other specialties and standard pharmaceuticals manufactured by Brewer & Company, Inc., including a complete line of Vitamin preparations for internal use and injection. Gel-ets, the newest mode in oral vitamin therapy, are also featured.

BRISTOL LABORATORIES, INC., Booth 65

The BRISTOL LABORATORIES exhibit will be devoted to the display of antibiotics and pharmaceutical products. Qualified representatives will be on hand to assist the medical profession with any inquiries. Literature describing Bristol products will be available.

BROOKS APPLIANCE COMPANY, Booth 65

Mr. W. C. Ayer will be in charge of our booth and will describe in detail the technic of treating Phlebitis and Varicose Ulcers with the new Compression bandage, Contura plus Pressoplast. Needles, Syringes, elastic stockings and Proctological instruments will also be on display.

THE BURDICK CORPORATION, Booth 98

The Burdick Corporation will exhibit in booth 98 their line of Physical Therapy Apparatus.

The latest models of Ultraviolet and Infrared Lamps, as well as Diathermy Apparatus will be shown. An item of special interest will be the Rhythmic Constrictor for the treatment of peripheral vascular conditions.

Doctors are invited to register for a free copy of the Burdick Syllabus, a compilation of clinical material on the use of Physical Therapy.

BURROUGHS WELLCOME & CO., Booth 53

BURROUGHS WELLCOME & CO., New York, cordially invite physicians to their exhibit of a representative group of fine pharmaceuticals and chemicals. Of particular interest are GLOBIN INSULIN, a new advance in diabetic control; DIGOXIN, a pure, stable, crystalline glycoside of Digitalis Lanata, combining constant, uniform potency with rapidity of action; 'DEXIN' High Dextrin Carbohydrate, the milk modifier in which the non-fermentable portion predominates; and 'NUTRAGEST' brand Dietary Compound, one of our newest preparations.

CAMBRIDGE INSTRUMENT CO., Booth 9

With its traditionally accurate "Simpli-Trol" Model Portable Electrocardiograph, and "Simpli-Trol" Portable Electrocardiograph-Stethograph with Pulse Recorder, the Cambridge Instrument Company is also exhibiting two important additions to its line of diagnostic instruments. The new Cambridge Elektrokymograph utilizes a pick-up device attached to the screen of a standard fluoroscope to record heart border motion on a regular "Simpli-Trol" Electrocardiograph. The new Cambridge Plethysmograph records variations in the size of human extremities as determined by the state of fullness of the blood vessels. It produces records which are standardized, quantitative, and reproducible.

W. H. Jefferson and J. Mackin in charge.

CAMEL CIGARETTES, Booths 26, 27, 28

CAMEL Cigarettes will present a dramatic full color review of their recent medical research on smoking, as well as the details of the nationwide survey showing that "More Doctors Smoke Camels Than Any Other Cigarette." Another panel will illustrate the absorption of nicotine in the respiratory tract. Representatives will be present.

THE CARNATION COMPANY, Booth 93

You are invited to visit the Carnation Company booth number 93, where you will see an attractive display presenting some interesting information on the various uses of Carnation Vitamin D. Evaporated Milk for infant feeding, child feeding, and general diet purposes. The method by

which Carnation Milk is generously fortified with Vitamin D — 400 U.S.P. Units per reconstituted quart — will be explained. Valuable literature will also be available for distribution.

CHICAGO PHARMACAL COMPANY, Booth 61

The Chimedix exhibit will feature two items: (1) a prenatal care preparation which is generally considered as complete and (2) a high blood pressure remedy which enjoys tremendous popularity.

CIBA PHARMACEUTICAL PRODUCTS, INC., Booth 71

Ciba Pharmaceutical Products, Inc., Summit, New Jersey (Booth 71) cordially invite you to visit their exhibit for the latest information on PYRIBENZAMINE, the new antihistaminic and antiallergic compound; PRIVINE HCl, a potent, long-lasting nasal vasoconstrictor; METANDREN Linguets, the androgenic hormone for sublingual administration; TRASENTINE and TRASENTINE-PHENOBARBITAL, effective antispasmodics and many other products.

Representatives in attendance will welcome the opportunity to answer any questions you may have.

THE COCA-COLA COMPANY

Coca-Cola will be served through the joint courtesy of The Coca-Cola Company and Coca-Cola Bottling Co., of Chicago, Inc.

CUTTER LABORATORIES, Booth 109

Biologicals, complete line of human blood fractions, Penicillin, Intravenous solutions, blood transfusion and plasma preparation equipment will be on display at this booth.

F. A. DAVIS COMPANY, Booth 100

We shall be pleased to have you examine these and other new Davis publications at Booth 100: Pillmore-Clinical Radiology; Litchfield-DeMbo-Therapeutics of Infancy and Childhood; Goldberg-Clinical Tuberculosis; McCrea-Clinical Cystoscopy; Stroud-Cardiovascular Disease; Lederer-Ear, Nose and Throat; Piersol-Cyclopedia of Medicine and Surgery; Alpers Neurology; Reimann-Treatment in General Medicine; Loewenberg-Medical Diagnosis; Murphy-Acute Medical Disorders; McPheeters-Varicose Veins and Hemorrhoids; McCrea Urology; and Taber-Medical Dictionary.

DePUY MANUFACTURING COMPANY, Booth 85

The DePuy Manufacturing Company will exhibit fracture appliances in booth 85. The new DePuy Sterilizing Rack for bone screws and bone plates will be featured. This is really a surgical instrument.

THE DeVILBISS COMPANY, Booth 13

Ever encouraging reports relative to spraying or the inhalation of penicillin and other antibiotics make The DeVilbiss Company exhibit at Booth 13 of pertinent interest. Atomizers, nebulizers, vaporizers and powder blowers for home use as well as office treatment, will be displayed. There are types for any treatment where spray application or inhalation is to be employed.

A. DIADUL & SONS, INC., Booth 39

Exhibit to display modern surgical and therapeutic appliances as used in deformity and injury cases. They are designed by science and the medical arts to produce results the physician can reasonably expect whenever support, pressure, bracing, fixation, suspension and traction are necessary. They likewise are very frequently employed for physical deficiencies, fractures, treatment of symptoms in disease and rehabilitation.

Proper construction in cooperation with the physician, light weight materials and modern fabrics enable us to produce appliances that are more comfortable with excellent cosmetic appearance.

Included among our many modern surgical appliances are individually made and fitted hernia trusses, abdominal and sacro-lumbar supports, arch supports, and spinal jackets.

THE DOHO CHEMICAL CORPORATION, Booth 47

The makers of AURALGAN are introducing at this meeting their new sulfa drug preparation O-TOS-MO-SAN, indicated in the treatment and control of chronic suppurative ears. Our representatives will be happy to explain, in detail, the workings of these medications. Also, to distribute our latest series of three Anatomico-Pathologic Charts of the Ear, in color, suitable for framing.

DUREX PRODUCTS, INC., Booth 108

The products to be exhibited by Durex Products, Inc., include Lactikol Jelly and Creme, which are Council accepted contraceptive preparations, various rubber coil spring and flat spring diaphragms, cervical caps and dia-

phragm introducers. Important features of the exhibit will include

1. The Lactikol Diaphragm Set, consisting of one tube each of Lactikol Jelly and Creme, a diaphragm and a plastic diaphragm introducer.
2. Plunger Applicator Set, including a plunger applicator and a tube of Lactikol Jelly or Creme.
3. Metri-Dose Set, including the Metri-Dose Syringe Type Applicator and a tube of Lactikol Jelly or Creme.

ELI LILLY & COMPANY, Booth 92

Featured at the Lilly exhibit will be new therapeutic developments. Many Lilly products are to be on display; representative literature will be available. Lilly medical service representatives are to be in attendance to aid visiting physicians in every way possible.

H. G. FISHER & CO., Booth 56

Visitors to the Illinois State Medical Society are cordially invited to visit our FISCHER Display Booth, to inspect the new units of FISCHER apparatus to be shown, along with the modern trends in shockproof x-ray and electro-surgical-medical equipment construction.

FISCHER units of apparatus are characterized by precision design and convenient, efficient operation. Members of the FISCHER organization will be present at all hours to answer questions and to demonstrate outstanding features of FISCHER equipment and performance. You will be welcome at our FISCHER booth.

C. B. FLEET COMPANY, Booth 10

C. B. Fleet Co., Inc., cordially invites you to stop by Booth 10 for a short visit with Mr. William S. Holt and Mr. J. Gordon Myers, the representatives who see you in your office about once a year. Perhaps there is something about Phospho-Soda (Fleet), the pure, stable aqueous concentrate of the two U.S.P. Sodium Phosphates, you would like to discuss with them.

FLINT, EATON & COMPANY, Booths 80 & 81

The lipotropic factor CHOLINE will be featured at the Flint, Eaton & Company booth. Our representatives will be glad to have you stop by and discuss the many uses for this important drug. Syrup Choline Dihydrogen Citrate is a palatable dosage form which will be acceptable to you and your patients.

FORBES LABORATORIES, INC., Booth 23

FORBES LABORATORIES, INC., GONATROPE (Forbes) is the prominent feature of the Forbes exhibit. GONATROPE (Forbes) illustrates the techniques involved in the specialized production of a true gonadotrophic hormone as extracted from the anterior lobe of equine pituitary. GONATROPE (Forbes) presents both follicle-stimulating and luteinizing principles, making possible the necessary synergistic action of these two important factors in control of the hypofunctional menstrual cycle. Other endocrine specialties, including estrogens (Forbes), are displayed.

FREEMAN X-RAY COMPANY, Booths 75 & 76

GERBER PRODUCTS, INC., Booth 46

You are always welcome at the Gerber's Baby Foods booth. Booklets are available on baby foods and recipes for variation of the toddler's diet, as well as tested recipes for adult special diets. There are professional reference cards for your files, which give food value and chemical analyses of Gerber's Cereals, Gerber's Strained Foods, and Gerber's Chopped Foods. Samples of Gerber's Cereals are also available.

OTIS GLIDDEN & COMPANY, INC., Booth 58

Zymenol, a palatable emulsion containing Brewer's Yeast, provides a natural approach to effective bowel management without irritant, habit-forming drugs or artificial bulking.

Teaspoonful dosage provides minimum liquid petrolatum intake, avoids leakage and assures negligible interference with fat soluble and vitamin absorption.

Your visit and inquiry is solicited. Literature and free trial supply on request.

HOFFMANN-LA ROCHE, INC., Booth 35

You are cordially invited to attend the Roche exhibit at the Illinois State Medical Society meeting. It will be well worth your while to drop in and glance briefly at the interesting exhibit on such clinically valuable drugs as PROSTIGMIN, the versatile cholinergic stimulant; EPHYNAL ACETATE, the stable, pure, well-tolerated vitamin E compound; PEROS-CILLIN, the dependable oral penicillin tablet; SYNTROPAN, the non-narcotic well-tolerated and antispasmodic; SYNTROGEL, the pleasant tasting, rapid acting, efficient

antacid; and other products you may find of value in your practice. A staff of experienced Roche representatives will be present to answer your questions and assist you in any possible way.

HOLLAND-RANTOS CO., INC., Booth 21

You are cordially invited to visit the Holland-Rantos Booth where on display will be the nationally known and universally used Koromex contraceptive specialties. Besides the new Koromex Set Complete, which is a package combining the necessary items for complete contraceptive technique, will be the new Nylmerate Jelly, introduced only a short time ago and received enthusiastically for the treatment of trichomoniasis and vaginal discharges of a non-specific origin.

Representatives of the company will be on hand to answer all questions. Samples of Nylmerate Jelly and Koromex Jelly will be available, as will copies of the new physician's instruction chart.

HYGEIA NURSING BOTTLE COMPANY, Booth 73

You are cordially invited to visit Booth 73 to see the advantages of the new improved Hygeia Nursing Bottle Unit. Learn why prescribing the Hygeia Unit — including nipple, bottle and cap — will help mothers overcome feeding problems.

Mr. Charles Clark will be in attendance.

IRWIN, NEISLER & COMPANY, Booths 104 & 105

Professional service representatives will be in attendance at our exhibit to explain to all of the members of the Illinois State Medical Society and their guests, the use of a new research development in the treatment of essential hypertension, called "Vertavis".

You are cordially invited and welcome to our exhibit at any time.

"THE 'JUNKET' FOLKS", Booth 86

In space 86 "The 'Junket' Folks", Chr. Hansen's Laboratory, Inc. Enlarged photos illustrate the action of the rennet enzyme in forming softer finer milk curds. Free literature describes dietary uses of rennet-custards in infant, child, convalescent, or post-operative feeding. Attendants on duty. Complimentary package of "Junket" Rennet Powder and "Junket" Rennet Tablets presented to physicians who register.

KELLEY-KOETT MANUFACTURING CO.,

Booths 44 & 45

You will find here an example of the ideal x-ray apparatus for radiographic and fluoroscopic work.

On display is the KELEKET KXP Combination, a complete radiographic-fluoroscopic installation characterized by its economical price, minimum space requirements, its ease of handling and simplicity of operation.

This compact yet sturdy equipment combines both radiographic and fluoroscopic facilities with sufficient x-ray energy to take care of any diagnostic requirements.

Also exhibited is the finest high intensity illuminator ever developed.

LEA & FEBIGER, Booth 52

At space 52 Lea & Febiger will exhibit among their new works and new editions Joslin's "Treatment of Diabetes," Cushman's "Pharmacology and Therapeutics," Wintrobe's "Hematology," Haden's "Hematology," Scott and VanWyck's "Obstetrics and Gynecology," Frohman's "Dynamic Psychotherapy," Bell on Renal Diseases, Davis' "Neurological Surgery," Wesson's "Urologic Reorganization," Levinson and MacFate's "Clinical Laboratory Diagnosis," Soffer on the Adrenals, and other standard works.

LEDERLE LABORATORIES, Booth 2

Lederle Laboratories will have on display the new Folic Acid products about which there has been so much interest. Among the products to be shown will be Folvite — Lederle's brand of Folic Acid and Folvron — Folic Acid and Iron, by which both iron deficiency anemias and macrocytic anemias may be treated. Ledinac, the first protein hydrolysate to be derived from liver, will also be on display.

LIBBY, McNEILL & LIBBY, Booths 68 & 69

Libby's Vitamin D₃ fortified homogenized evaporated milk and Libby's strained and homogenized baby foods are featured at the Libby booth. Physicians are invited to stop and discuss new findings on the greater availability of iron and ease of digestion of Libby's Council Accepted foods for babies.

J. B. LIPPINCOTT CO., Booth 115

J. B. LIPPINCOTT COMPANY, Philadelphia, Pa., presents a complete line of Lippincott Selected Professional Books and Journals. Be sure to see the current issue of AMERICAN PRACTITIONER — the monthly medical journal designed to shorten the lag between experiment and practice.

New books and new editions include: Scherf and Boyd: CARDIOVASCULAR DISEASES: White and Geschickter:

DIAGNOSIS IN DAILY PRACTICE: TeLinde: OPERATIVE GYNECOLOGY: Leaman: MANAGEMENT OF COMMON CARDIAC CONDITIONS: Rosenthal, Stern and Rosenthal: DIABETIC CARE IN PICTURES: Becker and Obermayer: MODERN DERMATOLOGY AND SYPHILOLOGY: Kracke: COLOR ATLAS OF HYETOLOGY: Pitkin's CONDUCTION ANESTHESIA: Edited by Southworth and Hingson, and BANTING'S MIRACLE, by Seale Harris.

M & R DIETETIC LABORATORIES, INC., Booth 84

M & R Dietetic Laboratories, Inc., booth 84, will display Similac, a food for infants deprived either partially or entirely of breast milk. Messrs. R. E. Davis, F. H. Behncke, and L. A. MacDonald will appreciate the opportunity to discuss the merit and suggested application for both the normal and special feeding cases.

A. E. MALLARD LABORATORIES, Booth 114

A. E. Mallard Laboratories cordially invites all members of the Illinois State Medical Society to visit our display. We will exhibit and sample products that are modern and manufactured under strict laboratory control.

Our booth will be attended by Mr. Dan Hovis and Mr. E. A. Wherry.

MARCELLE COSMETICS, Booth 22

Marcelle Cosmetics, Inc., will exhibit in Booth 22 its line of hypo-allergenic cosmetics, formulated specifically for the allergic individual and the person with a sensitive skin. Members of the organization will acquaint physicians with the features of the Marcelle line which qualify it for the attention of the medical profession and to discuss the cosmetic problems of the allergist, the dermatologist, and the general practitioner. All are invited to receive samples formulary, and other literature.

MEAD JOHNSON & COMPANY, Booths 78 & 79

"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pabulum, Oleum Percomorphum, and other infant diet materials — including the new pre-cooked oatmeal cereal, Pabena. But not all physicians are aware of the many helpful services this progressive Company offers physicians. A visit to Booths 78 & 79 will be time well spent.

MEDCO PRODUCTS COMPANY, Booth 60

You are cordially invited to visit Medco Products Company's booth exhibit of the very latest in surgical, medical and physical therapy equipment.

See the new Teca two-circuit hydro-galvanic units, an important contribution to physical medicine for office and institutional treatments, recommended for Arthritis, Neuritis, Peripheral Nerve Injuries and Functional Rehabilitation. Used in many civilian as well as Army, Navy and Veterans Hospitals and by a large and increasing number of physicians.

Also shown is the new Teca Low-Volt Generator SP3 with original new facilities permitting a more efficient and varied utilization of galvanic and sinusoidal currents.

MEDICAL ARTS SUPPLY COMPANY, Booth 74

THE MEDICAL PROTECTIVE COMPANY Booths 111 & 112

The Medical Protective Company's representatives, thoroughly trained in Professional Liability underwriting, invite you to visit exhibit booths 111 and 112. They are entirely familiar with the principles of the reciprocal rights and duties of a doctor and patient and with the circumstances peculiar to that relationship. They will be glad to explain how this Company meets the exacting requirements of adequate liability protection, which are peculiar to the Professional Liability field.

MELLIN'S FOOD COMPANY, Booth 67

Physicians are cordially invited to call and make inquiries regarding details of composition and application of Mellin's Food. During the eighty years of its existence Mellin's Food has so well established itself as to be worthy of consideration in any attempt to arrange nourishment for infants, children and adults.

THE MENNEN COMPANY, Booth 70

The Mennen Company will exhibit their baby products — Mennen Baby Oil and Mennen Baby Powder. Also, in addition, their fungicidal foot powder — Quinsana, as well as Quicool Powder.

THE WM. S. MERRELL COMPANY, Booth 54

The new Amino-Concemin is featured at the Merrell booth. This more complete nutrient tonic, designed to speed convalescence, contains the established B vitamins, the whole B complex from liver, rice bran and yeast, iron and 15%

protein hydrolysate. The protein hydrolysate (45% amino acids), an enzymatic yeast hydrolysate, closely approximates the amino acid and polypeptide content of meat. The rich winey flavor of Amino-Concemin represents an unusual taste accomplishment in a preparation of liver, iron and amino acids.

THE C. V. MOSBY COMPANY, Booth 36

New books and recent editions to be displayed at booth 36 by the C. V. Mosby Company will include Clendening-Hashinger "Methods of Diagnosis", Treiger "Atlas of Cardiovascular Diseases", Rubin "Uterotubal Insufflation", Ackerman-Regato "Cancer", Mobley "Synopsis of Operative Surgery", Key-Conwell "Fractures, Dislocations and Sprains", and Tassman "Eye Manifestations of Internal Diseases". Your examination of any of these, as well as the many other timely titles to be shown, is welcomed.

MOSS X-RAY AND EQUIPMENT CO.

Booths 6, 7 and 8

Moss X-Ray and Equipment Company have the largest display room of its kind in the middle west area located at 1672 West Ogden Avenue, Chicago. They have on display a variety of X-Ray and physical therapy equipment for office and hospital. A special feature at the convention will be the shock proof vertical fluoroscope, a completely self-contained unit that merely requires plugging into a 110 vol AC outlet.

V. MUELLER & COMPANY, Booth 1

A representative selection of instruments and equipment for all branches of surgery and the latest in modern medical furniture will be displayed in the Mueller exhibit in Booth 1.

A. R. NECHIN & COMPANY, Booth 77

In booth 77 will be exhibited the Jones Waterless MOTOR-BASAL unit. This unit records the basal metabolic rate by measuring the time needed for consumption of a predetermined quantity of oxygen and automatically comparing these obtained results with accepted normal values. Also in the same booth will be exhibited the CARDIOTRON — the portable direct-recording electrocardiograph. Without the necessity of processing or developing, the minutest heart action is precisely and permanently recorded the instant it occurs on standard graph paper which is unaffected by heat or roughest handling.

THOS. NELSON & SONS, Booth 59

ORTHO PHARMACEUTICAL CORP., Booth 49
The Ortho Pharmaceutical Corporation extends a cordial invitation to visit Booth 49. Their complete line of Gynecic Pharmaceuticals will be exhibited, including Papanicolaou Smear Stains for the detection of early uterine cancer and Nidoxal nausea and vomiting of pregnancy. Samples and literature will be available upon request.

PARKE, DAVIS & CO., Booth 5

Representatives of PARKE, DAVIS & CO., well informed concerning progress in Pharmaceutical Research, and desirous of presenting new advancements to you, will be in attendance at our Technical Exhibit to discuss the nature and employment of new and present products. Displayed will be such outstanding products as THEELIN, MAPHARSEN, and ADRENALIN PREPARATIONS. The latest type of BIOLOGICALS will be on display. Likewise, PENICILLIN and other therapeutic agents of antibiotic, biological, and chemotherapeutic interest will be shown. We sincerely invite your visit to this Exhibit.

PET MILK SALES CORPORATION, Booths 96 and 97

A complete display of material illustrating the time-saving Pet Milk services available to physicians. Specially trained representatives will be in attendance to give you information about the production of Pet Milk and its use for infant feeding. Miniature cans will be given to physicians visiting the exhibit.

PHILIP MORRIS & CO., Booth 113

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

PICKER X-RAY CORPORATION, Booths 102 and 103

PICKER X-RAY CORPORATION will exhibit their 200 Milliamperes 4 Valve Diagnostic X-ray Unit. This unit is equipped with a Rotating Target tube over the table and a separate tube inside the table. Radiography or Fluoroscopy can be performed in every position from Trendelenberg to Vertical. A full line of X-ray accessories will also be displayed.

PITMAN-MOORE COMPANY, Booth 5

The Pitman-Moore exhibit will feature a number of recent advances and improvements in pharmaceutical and biological products. However, the Pitman-Moore booth will prin-

cipally be used as a place where the company's representatives may renew acquaintance with their friends in the profession.

PROCTER & GAMBLE COMPANY, Booth 55

In booth No. 55 the Procter & Gamble Company offers the first four of a series of time-saving leaflet pads for doctors. These are entitled "Instructions for Routine Care of Acne", "Instructions for Bathing a Patient in Bed", "Instructions for Bathing Your Baby" and "The Hygiene of Pregnancy". Additional leaflet pads are being prepared, designed to save doctors time in answering patient's questions on routine home care. Also displayed will be other samples of service material prepared for the medical profession. Mrs. Christyne Schwab will be in charge of the booth.

RADIUM AND RADON CORPORATION, Booth 72

Radium and Radon Corporation will exhibit radium and radon therapy equipment. The Company recently installed a modern Radon Laboratory adjacent to its offices in the Marshall Field Annex Building, 25 E. Washington Street, Chicago, Illinois, only two blocks from the Palmer House. In this laboratory Radon (reemanation) is placed in tiny gold capillaries suitable for intratumoral implantation.

Representatives in attendance at the Exhibit will be pleased to show the laboratory to interested physicians.

RARE CHEMICALS, Booth 29

Preparations exhibited by Rare will include Acidolale (non-lathering liquid) and Dermolate (new lathering solid), both non-irritating skin detergents; Also Eucupin, local anesthetic with prolonged analgesic action, Gitalin, Digitalis preparation, Salsal, anti-rheumatic analgesic, and Testosterone Propionate, "Rare Chemicals", androgenic preparation.

REED AND CARNRICK, Booth 31

Meprane, a new synthetic estrogen which affords prompt relief of menopausal symptoms and imparts a sense of well-being without unpleasant side reactions, is being featured at the Reed & Carnrick booth. Literature and samples are available.

J. B. ROERIG & COMPANY, Booth 25

J. B. Roerig and Company will exhibit at their booth interesting products for use in arthritis, anemia, and dermatological conditions. Company representatives will be on hand to explain these various products in detail. Attending physicians are cordially invited to call at the Roerig display.

ROOSEVELT CHAIR & SUPPLY COMPANY, Booth 48

We are manufacturers of tubular steel wheel chairs, chrome folding wheel chairs, walkers, and commode chairs, and we will exhibit a complete line of the aforementioned wheel chairs at the convention.

W. B. SAUNDERS COMPANY, Booth 3

This Company will exhibit the complete line of their books including Hyman's "Integrated Practice of Medicine," Bockus' "Gastro-enterology," Lyons & Woodhall's "Atlas of Peripheral Nerve Injuries," Rubin's "Diseases of the Chest," Cooke's "Allergy," new editions of Wechsler's "Clinical Neurology," Ranson & Clark's "Anatomy of the Nervous System," Novak's "Gynecological and Obstetrical Pathology," Cecil's "Medicine," DeLee & Greenhill's "Obstetrics," Wharton's "Gynecology and Female Urology," Duncan's "Diseases of Metabolism," McCombs' "Internal Medicine," and many others.

SCHENLEY LABORATORIES, INC., Booth 15

The Schenley Laboratories' exhibit is devoted entirely to penicillin and penicillin products, and features clinical illustrations of treated patients. Various methods of administering penicillin will be discussed with interested physicians by well-informed attendants at the booth. Descriptive literature concerning treatment methods and various Schenley Laboratories' products is supplied on request.

SCHERING CORPORATION, Booth 66

The Schering booth will feature the potent oral estrogenic hormone, **Estinyl**, (ethinyl estradiol) the oral progestin, **Pranone** (anhydrohydroxy-progesterone) and the oral androgen, **Oretan-M** (methyltestosterone). The well-known parenteral hormones, **Oretan** (testosterone propionate), **Progynon-B** (estradiol benzoate), **Proluton** (progesterone), and **Cortate** (deoxycorticosterone acetate) will also be displayed. The new effective treatment for ophthalmic infections, **Sodium Sulfacetamide Solution 30%** will be of interest as will be the clinically safer sulfonamide combination **Combisul-Td** and the radiographic media **Priodax** and **Neo-Iopax**. Schering Professional Service Representatives will be present to welcome physicians inquiries.

JULIUS SCHMID, INC., Booth 34

You are cordially invited to see the new JULIUS SCHMID, INC., exhibit of RAMSES Gynecological Products. Quickly and easily the best way to safeguard the health of certain patients is demonstrated. This exhibit enables the physician to evaluate according to precise scientific standards the salient quality features of RAMSES Gynecological Products.

Proper use of RAMSES Gynecological Products, every one Council Accepted, will insure for your patients the best possible protection, judged by recognized authoritative standards.

G. D. SEARLE & CO., Booth 110

Will show a number of products of Searle Research which have contributed so much to the armamentarium of the physician, including Searle Aminophyllin, Metamucil, Keto-chol, Floraquin, Diodoquin, Pavatrine, Pavatrine with Phenobarbital, Gonadophysin, and Tetrathione.

Features will be the new Aminophyllin Suppositories, the Searle brand of Aminophyllin Suppositories, which remain stable at temperatures up to 130° F., but which liquefy readily under conditions of use.

THE SECURITY LABORATORIES, Booth 38

The Security Laboratories, Burlington, Iowa, the Midwest's complete physicians' and surgeons' supply house, is exhibiting Hamilton Furniture, McKesson Basal Metabolizers, Sklar stainless steel instruments, Profex X-rays, American Cystoscope Makers, Inc., Urological Instruments and Catheters, Bard-Parker products, Davis and Geck sutures, Miller Rubber Sundries, and Davol Company rubber Sundries, Ritter Company Eye, Ear, Nose and Throat Equipment, and other products of leading manufacturers.

The exhibit will be under the direction of K. P. McCullough, S. G. Masengarb, and J. B. Wahl.

SHARP & DOHME, INC., Booth 12

Sharp & Dohme extends a cordial welcome to all visitors at booth No. 12. New antibiotic preparations including "Prothricin" nasal decongestant and "Tyroderm", tyrothricin cream are being featured along with "Sulfathalidine" and "Sulfasuxidine", intestinal bacteriostatic agents, "Lyocyte" Powder, dried human blood cells and "Lyovac" Normal Human Plasma complete the items on exhibit.

SIEBRANDT MANUFACTURING COMPANY, Booth 37

Will show at Booth 37 a new type Portable Fracture Table, which will serve for Reduction and Alignment of the various conditions required in fracture treatment.

The Table Base is built of Plywood, Plastic, and Aluminum, fully transparent for X-Ray service.

The outstanding feature is a full length Cassette Tunnel for holding all sizes of X-Ray Cassettes for either Pelvic, Spinal, or Cervical examination, without disturbing patient.

The legs of the Table are quickly removable, and permit Table to be placed on regular X-Ray Table, if mobile X-Ray unit is not available. The top of the Table is constructed like a box with lid to serve as container and will hold mechanical accessories, including removable legs, for storage.

They will also show the Goodwin Bone Clamp, Clayton Transfixion Splints, Finger Trap Attachment, and a complete line of splints, bone instruments, and fracture Equipment.

SMITH-DORSEY COMPANY, Booth 20

Estrogenic Substances, Liver and other parenteral products will be featured at the Smith-Dorsey exhibit. Specialties will be available for examination and Smith-Dorsey representatives will welcome the opportunity to discuss them with physicians attending the meeting. Make the Smith-Dorsey exhibit your headquarters. You are welcome every day.

SMITH, KLINE, & FRENCH LABORATORIES, Booth 87

Professional representatives will be glad to answer questions and to discuss uses in your own practice of several interesting products among which two are of special importance: BENZEDRINE SULFATE TABLETS, N.N.R. and DEXEDRINE SULFATE TABLETS: Since its introduction some ten years ago, Benzedrine Sulfate N.N.R. (racemic amphetamine sulfate) has grown steadily in clinical usefulness and today occupies a unique place in routine medical practice. For certain selected cases, however, it is often desirable to employ a drug combining an even more preponderant central nervous stimulation with a relatively weaker peripheral effect. A closely related compound—Dexedrine Sulfate (dextro-amphetamine sulfate)—precisely fulfills these requirements.

E. R. SQUIBB AND SONS, Booths 106 & 107

Penicillin blood levels following administration of Crystalline Penicillin G Sodium in Oil and Wax.

FREDERICK STEARNS & COMPANY, Booth 24

You are cordially invited to visit the booth of Frederick Stearns & Company Division, manufacturers of professional products.

The various ethical items of the firm will be explained by professional representatives in attendance at the Exhibit.

Among the better nationally known prescription items are

Neo-Synephrine, Neo-Synephrine Sulfathiazolate, Neo-Synephrine with Penicillin; Parenamine, Stearns Amino Acids prepared by the acid hydrolysis process; Demerol Stearns; Gastron, Pepsencia and Holadin, Fergon and others.

To the physicians registering at the booth we will be glad to send professional literature and samples to your home address if you will just indicate the professional products you are most interested in.

SURGERY, GYNECOLOGY AND OBSTETRICS

Booth 16

The leading surgical journal in the English language is depicted at Booth 16. An interesting exhibit portrays the character and quality of a surgeon's journal, which is edited from the standpoint of meeting the needs of the practicing surgeon.

The superior printing, beautiful illustrations and high editorial standards, are graphically portrayed through "Translites" in this exhibit. The journal, now in its forty-second year, is enjoying its greatest popularity and circulation. Visit Booth 16.

SUTLIFF AND CASE COMPANY, Booths 89 and 90

As usual the representative serving you in your territory will be on hand to greet you and acquaint you with a few of our new pharmaceutical items, also will be on display the original pharmaceutical preparations of Thiocyanate (Sulfocyanates) for the treatment of arterial hypertension.

SWIFT AND COMPANY, Booth 50

Swift and Company are exhibiting their new all-meat Baby Foods, Swift's Meats for Babies and Juniors. You may sample and examine strained or diced meats in six varieties — beef, lamb, veal, pork, heart, and liver. These high protein foods are also useful in special adult diets. Literature is available.

UNIVERSAL PRODUCTS CORPORATION

Table Space

Something new, something bright, Most doctors call it "Fingalyte." Surgeon's Fingalyte is a ray of sun in the dark. A complete diagnostic case for the surgeon, the general practitioner, obstetrician, also eye, ear, nose and throat. It is compact in a neat case and indestructible. For trans-illumination, it has no equal. In removing foreign bodies from the eye, you have magnification and illumination on one finger giving the other two fingers for holding the eye open. It also has an efficient emergency headlight.

UNIVERSITY OF CHICAGO PRESS, Booth 91

The exhibiting of BOOKS FROM UNIVERSITY PRESSES is an out-growth of the American Association of University Presses. Each press represented is a separate publishing company devoted to the production of important technical and scholarly works which might otherwise go unpublished, as well as general books of vital interest to all Americans. Because of their common goals, and because some of them are so small to sponsor exhibits alone, these presses have combined to present their books in a single group.

U. S. VITAMIN CORPORATION, Booth 19

Full color illustrated brochure "Diagnosing Vitamin Deficiencies" together with professional samples and literature on VI-SYNERAL, POLY-B, VI-LITRON, HYPERVITAM, LIPO-HEPLEX, DALSOL, DESIVER, AMIPROTE, and other.

WHITE LABORATORIES, Booth 83

White Laboratories, Inc. at Booth No. 83 present information regarding White's Sulfathiazole Gum — expressly formulated for topical chemotherapy in oropharyngeal infections; White's Otomide — a more effective means of topical chemotherapy in ear infections — and a NEW specialty, White's Mol-Iron Tablets, a new and definite advance in the treatment of iron deficiency anemias.

White's ethically promoted vitamin specialties are also featured. You will find a very cordial welcome by White's Medical Service Representatives in charge of the exhibit.

WINTHROP CHEMICAL COMPANY, INC., Booth 57

WINTHROP CHEMICAL COMPANY, INC., New York (Booth 57) extends a cordial invitation to visit its booth where representatives will be on hand to discuss the latest therapeutic contributions made by this firm. Featured will be Demerol, analgesic, spasmolytic and sedative and Creamalin, non-alkaline antacid.

WYETH, INCORPORATED, Booth 18

It's always a pleasure to welcome members of the medical profession at the Wyeth Booth — whether it's just to say "hello" or to sit and rest to pass the time of day, or to discuss any of the new Wyeth pharmaceuticals, antibiotics or nutritional preparations which will be featured.

Correspondence

ANNUAL MEETING, AMERICAN COLLEGE OF CHEST PHYSICIANS

The Thirteenth Annual Meeting of the American College of Chest Physicians is scheduled to be held at the Ambassador Hotel, Atlantic City, New Jersey, June 5 to 8. An interesting scientific program has been planned for this meeting. Prominent speakers from other countries will present papers.

The oral and written examinations for Fellowship will be held on the first day of the meeting, June 5. Applicants for Fellowship in the College who plan to take these examinations should communicate *at once* with the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The Convocation for new Fellows and Life Members of the College will be held on Sunday, June 8. At this time certificates will be awarded to Fellows and Life Members admitted since June 1946.

ARMY MEDICAL LIBRARY MICROFILM SERVICE

During the war, the army medical library through its photoduplication services supplied millions of pages of microfilmed medical articles to the armed services and other research agencies. The principal of immediate aid direct to the user, wherever he might be introduced a new technique to assist medical research.

This service is now generally available for civilian physicians, institutions and research workers on a cost basis. This means direct

access to the library's enormous resources of medical literature.

A fee of fifty cents is charged for filming any periodical article in a single volume, regardless of length. Microfilming from monographs is furnished at fifty cents for fifty pages or fraction thereof. Photostats are also available at a charge of fifty cents per ten pages or fraction thereof. Material filmed is not for reproduction without permission of the copyright owner.

For convenience and to keep bookkeeping costs down, a coupon system has been established. Users may buy any quantity of photoduplication coupons at fifty cents each. Order blanks are available upon request. Checks should be made payable to the Treasurer of the United States, and sent to the Army Medical Library, 7th St. & Independence Ave., S.W., Washington 25, D. C.

A factor which has unquestionably retarded the control of tuberculosis has been an unwillingness on the part of the public and the medical profession to look upon tuberculosis as a communicable disease. The possibilities of prevention have been generally obscured by the stigma that has dogged the disease through the centuries. Henry D. Chadwick, M.D., and Alton S. Pope, M.D. *The Modern Attack on Tuberculosis*, The Commonwealth Fund, Revised, 1946.

The average age of the population is increasing, the number of cases of tuberculosis in the aged is showing a commensurate rise. The disease in the elderly may be even more prevalent than mortality statistics suggest, since a significant number of deaths are not accurately reported. J. D. Wassersug, M.D., *N. E. Jour. of Med.*, Aug. 15, 1946.



Post Graduate Conferences

THE JOURNAL PRESENTS A PICTORIAL REPORT ON A TYPICAL CONFERENCE WHICH WAS HELD IN JOLIET ON JANUARY 22.

One of the most important activities of our Society is its program of Post Graduate Conferences. Ten are held each year; one in each of the downstate Councilor Districts.

Arranged by the Post Graduate Education Committee, Robert S. Berghoff, Chicago, Chairman, these generally include a full afternoon of lectures by men who are recognized as leaders in their respective fields.

At the meeting in Joliet on January 22, the

Will-Grundy Society acted as hosts at a well attended cocktail hour between the afternoon session and the banquet in the evening. Drs. Paul E. Landmann, A. L. Shreffler and R. W. Lennon made up the committee for the local Society.

Invitations were sent to 665 members of the Society and more than 120 of them registered at the meeting. This is an average turnout. The following are the registrations for meetings held

E. S. Leimbacher, E. R. Talbot, A. L. Shreffler, R. W. Lennon and R. R. Bates all of Joliet gather outside the meeting room. Harold M. Camp, Secretary of the State Society is on the stairs.





The lecturers met with members of the audience who had specific questions after the afternoon session. Here (Left to Right) James H. Hutton discusses endocrine problems with G. L. Richards, L. G. Wisner and J. Roberts.



In another round table following the lectures, A. L. Mathis of Elmhurst and J. Campbell Carey of Joliet were in the group meeting with Warren H. Cole for further coverage of particular cancer problems.

earlier in other Councilor Districts.

<i>District</i>	<i>Held at</i>	<i>Attendance</i>
1st	Rockford	136
2nd	LaSalle	102
5th	Bloomington	142
6th	Quincy	84
7th	Decatur	153
9th	Benton	86

The meetings for the 8th, and 10th Councilor Districts are being held in April at Mattoon and

East St. Louis respectively.

At Joliet, after a complimentary luncheon in the Louis Joliet Hotel, the guests heard the following speakers:

James H. Hutton, "Common Endocrine Disturbances."

Warren H. Cole, "Cancer."

Frederick H. Falls, "Cesarean Section."



Andrew Bustlin, Robert Lowery, E. Svetich, Leon Gardner, and Joseph Trlxna, all from Joliet. Gardner is the new Secretary for the Will-Grundy Society replacing Trlxna who had served the organization for five years.



This group, enroute to the cocktail party given by the Will-Grundy Society, includes Gregory M. Carey, Paul E. Landmann, E. A. Kingston, Theodore Polley, Frank J. Chmellk, and Charles J. Carlin.



Frank Deneen, Bloomington, (Center) a member of the Post Graduate Education Committee, helps Frances Zimmer from the Secretary's office register L. S. Pederson of Manhattan. Registration totaled 124.



Frederick H. Falls (facing camera) has an interested group of listeners in H. E. Spafford of DeKalb, A. N. Kitenplon, Aurora, and E. Y. Ross of Cabery. Falls is Professor of Gynecology and Obstetrics at the University of Illinois College of Medicine.

Raymond W. McNealy, "Primary Anastomosis of the Large Bowel."

Howard Alt, "Diagnosis and Treatment of Leukemia."

In the evening, following the banquet, Edwin S. Hamilton, who is Councilor for the district, Percy E. Hopkins and Harold S. Camp informally discussed voluntary prepayment medical care plans.

The enthusiastic reception of the program at Joliet, and in other districts, is testimony to the importance of this educational phase of the Society's activities. With temperatures near the zero mark, many of those in attendance drove from cities in Du Page, Ford, Iroquois, Kankakee and Kendal counties. All described the session as "interesting and worthwhile."



Mrs. Saxon accompanied her husband M. R. Saxon from Oswego. At right H. R. Schmidt, Aurora, talks to A. R. Rikli, Naperville. The latter has served as Secretary for DuPage County for many years.



This laughing trio is made up of Harry W. Kinne, a past president of the DuPage County Society from Wheaton, H. R. Moser of Aurora, and A. D. Chidlow of Villa Park.

State Department of Public Health

RAPID TREATMENT PROGRAM FOR SYPHILIS

LEONARD M. SCHUMAN, M.D., M.Sc.

Chief

Division of Venereal Disease Control

Rapid treatment of early syphilis with penicillin in private hospital facilities was initiated as a Statewide program by the Division of Venereal Disease Control of the Illinois Department of Public Health on November 1, 1945. Having received the approval of the Committee on Venereal Disease Control and the Council of the Illinois State Medical Society, the response from the private physician and the public has been gratifying as evidenced by the record of the past 15 months of operation.

To facilitate the treatment of early syphilis and render cases non-infectious in as short a time as possible, the hospitalization of indigent cases in private hospitals at State expense is provided for in the plan. To date, 24 private hospitals in downstate Illinois have been contracted for this care on a patient-day basis and each hospital has a physician, designated by the local Medical Society, who confirms the diagnosis and manages the therapy of admitted cases.

Every physician of the downstate area (exclusive of two zones of 50 miles around Chicago and St. Louis) who diagnoses early syphilis in an indigent patient, is invited to refer such cases to contracted hospitals through his full-time local health authority. In the two 50-mile zones, the Chicago Intensive Treatment Center and the St. Louis Midwestern Medical Center

are accepting patients for rapid treatment from these respective areas.

Inasmuch as time, medical skill and effort are necessary for a proper diagnosis of syphilis, a \$10 diagnostic fee is offered the physician in those counties whose Medical Societies approve the diagnostic fee plan. This fee is payable upon confirmation of the diagnosis and hospitalization of the patient.

Should the physician prefer to treat private patients with early syphilis who can afford hospitalization, the Illinois Department of Public Health will provide him with schedules of rapid penicillin therapy accepted by eminent syphilologists and sufficient drugs free of charge to complete the therapy. All the Department requires is the morbidity report and an abstract of treatment.

In the 15-month period preceding the initiation of the program, downstate private physicians reported 736 cases of primary and secondary syphilis to the Department of Public Health. In the ensuing 15 months of operation 1352 cases of primary and secondary syphilis were reported, for an increase of 83.7%. Based on existing records, this represents the highest private physician reporting experience for primary and secondary syphilis.

Excluding the 50-mile zones around Chicago and St. Louis, reports from private physicians in the balance of the downstate area total 995 cases of primary and secondary syphilis for the 15 months. In this period 780 cases were admitted to private hospital facilities in downstate

Illinois. Of these, 456 (58.5%) were referred by private physicians and 324 (41.5%) by venereal disease clinics operated by local and state health offices. Thus, of primary and secondary syphilis cases reported by downstate private physicians, 45.8% were referred to rapid treatment facilities. Correspondence from private physicians further reveals that an additional 50 patients, financially able to pay their own hospitalization costs, have been treated by the recommended schedules of therapy. There is thus reason to believe that the Statewide rapid treatment program has influenced reporting by private physicians and the control of infectious syphilis promoted thereby.

The acceptance of the program has been gratifying. Following approval by the Council of the Illinois Medical Society, the County Medical Societies of 88 of the 102 counties (14 counties proximate to pre-existing facilities at Chicago and St. Louis excluded) were invited to participate in the diagnostic fee plan. To date, 39, or 44%, of these counties have accepted and are participating in the plan, and of the remainder, in which formal action is pending, the majority are expected to approve.

To acquaint all physicians with the procedures of the rapid treatment program, the following outline is presented for their guidance:

I. ELIGIBILITY OF PATIENT FOR REFERRAL

- A. Primary and secondary syphilis.
- B. Early latent syphilis (asymptomatic of less than four years' duration — with previous treatment not exceeding 6 arsenicals and/or bismuth).
- C. Syphilitic pregnancy (regardless of stage or period of gestation or previous treatment).
- D. Congenital syphilis (under 10 years of age).

II. REFERRAL

- A. Private physician executes "Diagnostic and Referral Form" (Form 1) obtainable from his district health superintendent or full-time city and county health officers, calls the respective health authority regarding patient and transmits Form 1 to the health officer.
- B. Patient is referred to the health department

for a confirmation of diagnosis and admission to hospital.

- C. Diagnostic fee is payable upon hospitalization of patient.

III. RAPID TREATMENT AT THE HOSPITAL

- A. *Penicillin*: 16,667 units intramuscularly every two hours for nine days for a total of 1.8 million units. (Modification for syphilitic pregnancy and congenital syphilis).
- B. *Dichlorophenarsine Hydrochloride*: .045 grams intravenously every other day in hospital for 5 days.
- C. *Bismuth Subsalicylate In Oil*: 1 c.c. intramuscularly on the 1st, 5th and 9th days.
- D. Schedules of therapy available on request from the Division of Venereal Disease Control, Illinois Department of Public Health.

IV. POST THERAPY FOLLOW-UP

- A. Monthly quantitative serologic tests for six months, including clinical examinations of mouth, eyes, skin and genitalia.
- B. Bi-monthly examinations (serologic and clinical) until 1 year after completion of therapy.
- C. Spinal fluid examinations at six months and one year.
- D. Re-treatment of clinical or serologic relapses immediately.
- E. Cases referred to venereal disease clinics for follow-up where facility is available.
- F. In areas without access to clinic, the Division of Venereal Disease Control will authorize the payment for the follow-up examinations to private physicians.

V. DOWNSTATE HOSPITAL FACILITIES:

<i>City</i>	<i>Name of Hospital</i>
Bloomington	Mennonite Hospital
Bloomington	St. Joseph's Hospital
Cairo	St. Mary's Hospital
Canton	Graham Hospital
Champaign	Champaign County Hospital
Champaign	Burnham Hospital
Danville	Lake View Hospital
Galesburg	Galesburg Cottage Hospital
Galesburg	St. Mary's Hospital
Herrin	Herrin Hospital
Kankakee	St. Mary's Hospital
La Salle	St. Mary's Hospital

McLeansboro	Vickers Memorial Hospital
McLeansboro	McLeansboro Hospital
Mattoon	Memorial Methodist Hosp.
Olney	Olney Sanitarium
Peoria	St. Francis Hospital
Pernu	Peoples Hospital
Quincy	Blessing Hospital
Quincy	St. Mary's Hospital
Rockford	Winnebago County Hospital
Rockford	St. Anthony's Hospital
Rock Island	St. Anthony's Hospital
Springfield	St. John's Hospital

BIRTH AND DEATH RECORD UNUSUAL

Vital experience in Illinois during 1946 was unusual in two respects. A considerably larger number of births, 170,921, was reported than in any previous year while the number of deaths, 88,373, was one of the lowest on record in proportion to the population. The birth rate was 20.9 and the death rate 10.8 per 1,000 estimated population. The excess of births over deaths was 82,548 compared with 21,046 in 1936, a decade earlier.

The implications of this experience are many and far reaching. The high birth rate, which has prevailed since 1941, places a larger proportion of the population in the childhood group. The lower general death rate indicates a larger proportion also in the older age groups. Losses of young men in the war coupled with the unusually low birth rate that prevailed during the decade, between 1930 and 1940 reduce proportionately that part of the population in the most productive period of life, 25 to 55. This situation will inevitably influence considerably the entire social, cultural and economic fabric during the next decade or so.

The greatest number of deaths (and therefore the highest crude death rate) is seen in heart disease. Every year sees a great number of heart deaths, but in 1946 the crude rate dropped to 384 per 100,000 population from the 408 in 1945. This drop in the rate comes from the fact that the increase in deaths from this cause did not keep pace with the growth of population. A similar situation is observed for cancer, where the crude rate fell off from 164 in 1945 to 157 per 100,000 population in 1946, even though the total number of deaths increased. Other

leading diseases having lower crude rates for the same reason were cerebral hemorrhage, diabetes, nephritis, and diseases of the digestive system.

The most outstanding progress in saving lives was among newborn babies and their mothers. Despite the great number of births in 1946, which taxed obstetric and pediatric facilities to the greatest extent ever, deaths associated with childbearing reached an all time low of 1.3 maternal deaths per 1,000 livebirths and deaths of babies under 1 year of age dropped to 30.3 infant deaths per 1,000 live births, the lowest in history.

PROVISIONAL VITAL STATISTICS RATES FOR ILLINOIS

	1946	1945
Deaths per 1,000 population	10.8	11.4
Live births per 1,000 population	20.9	17.3
Stillbirths per 1,000 live births	21.3	21.9
Infant deaths per 1,000 live births	30.3	31.8
Maternal deaths per 1,000 live births	1.3	1.8

Although the stillbirth rate is also at a minimum, it is hazardous to draw conclusions because the reporting of stillbirths is far from complete and there is no way of knowing whether the reporting is better or worse now than before. What evidence there is indicates that better and more prenatal care is being given the expectant mother and that this helps save lives. Continued improvement is possible, as can be seen from comparing conditions in the various parts of the state. In the city of Chicago the infant and maternal death rates are 28.8 and 1.2 per 1,000 live births, respectively; in the rest of the state the infant death rate is 31.3 and the maternal death rate 1.5. The fact that these rates are based on *occurrence* rather than residence makes the disparity more important, because Chicago, as an important medical center, tends to draw into the city many cases with complications.

Incidental good news is the fact that for the 8th successive year there has not been a death from smallpox in the state. However, as long as even a few cases of the disease occur it remains a threat and requires continued immunization against the disease. Deaths from meningitis were almost halved and indications are that the wartime boom in this disease has nearly been abated.

The adverse events of 1946 which come most readily to mind are the epidemic of poliomyelitis and two tragic accidents. There were 171 deaths from polio, nearly double the number in 1945

CRUDE DEATH RATES

	Deaths per 100,000 population	
	1946	1945
Heart disease	383.5	408.2
Cancer	157.1	164.4
Cerebral hemorrhage	86.1	92.5
Nephritis	68.1	78.4
Accidents (Motor vehicle)	(20.4)	(18.6)
Accidents	64.3	64.7
Influenza and Pneumonia	36.9	41.3
Tuberculosis	36.1	40.0
Diabetes	31.1	34.7
Premature birth	23.8	17.6
Arteriosclerosis	18.6	21.0

and 19 more than the previous high of 152 deaths in 1943. The railroad wreck at Naperville in May led to 46 deaths and the holocaust at the La Salle Hotel in Chicago caused 61 deaths. These two catastrophes significantly increased the proportion of deaths from public accidents for the year.

An epidemic and a spectacular wreck or fire focus attention because they, fortunately, are unusual. But the greatest dangers to life are unfortunately too often passed over just because they are familiar every day occurrences. Increased use of automobiles has brought on a sharp increase in auto accidents. The 1,669 deaths from motor vehicle accidents in 1946 were 16% higher than in 1945 and almost 27% above the low reached in 1944 when the greatest restrictions on auto traffic were effective. While motor vehicle fatalities are well under the peak figure of 2,600 reached in 1941 the trend shows that we need not be surprised if that figure is soon approached or even passed. Probably the worst feature of the mortality from accidents is that it strikes heavily on children and on persons in the productive years of life.

While the downward trend of deaths from

tuberculosis continued in 1946, this disease is always a great cause for concern because of its impact on individuals in the earlier years of maturity. Tuberculosis is the second most frequent cause of death in persons in each of the age groups 15-24 and 25-44 years.

A prime cause for concern is the doubling of deaths from diphtheria, 31 and 15, respectively in 1946 and 1945. Despite the fact that diphtheria can be prevented by immunization, the disease caused 13 deaths in 1946 among children under 5 years, as opposed to only 6 deaths in 1945. Similarly, the 9 deaths among children aged 5-14 were 3 more than for those ages during 1945. A new problem is created by the increase in diphtheria among adults. In 1946 there were 9 deaths from diphtheria in persons 15 years old and over as opposed to only 3 deaths in 1945; of the 9 deaths in this age group, 5 were in the ages 15 to 25.

Although death from whooping cough dropped off sharply in 1946, the 30 deaths from this cause make a tragic commentary on the failure to immunize all babies against the disease. Certain fatal infectious diseases usually infrequent as causes of death, were sharply higher in 1946 than in 1945. Tularemia accounted for 9 deaths as compared with 6 in 1945, and Rocky Mountain spotted fever caused 4 deaths in 1946 as opposed to none in the previous year.

Suicides and homicides increased sharply in 1946 over 1945. Suicide rates were at their lowest during the war period and were at their highest during the years of economic uncertainty from 1930 through 1934. Homicide was also very low during the war years.

★ CHANGE IN DATES

of some

LUNCHEON MEETINGS

previously announced.

Consult ANNUAL MEETING

Program — Page 173.

Original Articles

ILLINOIS HOSPITAL SURVEY AND PLAN PROGRESS REPORT

HENRIETTA HERBOLSHEIMER, M.D.

Director of Hospital Survey
Illinois Department of Public Health
SPRINGFIELD

During the past 70 years hospitals in America, like Topsy, "just grew up". In this period there was little thought given to the availability and the adequacy of facilities and small application of principles of integration. With the recommendation of the American Hospital Association in 1941 that constructive thought be given to the need for more order in our hospital system, the Commission on Hospital Care an independent voluntary organization came into being. This Commission was designated (1) to assay the existing hospital facilities, (2) to estimate community needs, (3) to establish the relationship of hospitals to preventive medicine, (4) to stimulate hospital studies in each of the states and (5) to correlate the findings of the states. It was wisely planned that the states make their own studies because of local variations of the problems and the need for local interest and information.

The Illinois Survey of Hospitals and allied institutions providing in-bed care for the sick began a little more than a year ago when Governor Green authorized the State Department of Public Health to make an extensive study of existing facilities. The governor further recommended that there evolve from this Study

an overall plan for the construction of hospitals which would bring the best equipment and personnel within reasonable convenience of all the people in our state. This large task which had the full endorsement of the Illinois Hospital Association was begun in the pattern established by the National Commission on Hospital Care.

To guide the State Department of Public Health the Governor appointed an Advisory Council on Hospitals. This group of 50 men and women represent hospitals, the medical, nursing, dental and legal professions, in addition to labor, agriculture, manufacture, the press and education. The Executive Committee of this council and its Technical Sub-Committee have been in frequent session with the State Study Group. The Survey which took into consideration 1200 institutions listed as hospitals or homes for chronics and convalescents is complete. In the course of the field work, 43% of the original number of institutions was deleted from the Study because those places did not qualify as hospitals or allied institutions. Data from 320 hospitals and 362 nursing homes comprise the final body of information. This information obtained from the questionnaires present an all inclusive picture of the institutions surveyed. There were only five institutions in the State of Illinois that refused to submit the desired information. This represents 99.3% cooperation, which (and I believe you will agree with me) reflects a spirit of which we may justly be proud. To the hospital administrators who furnished the important information about the experiences of their institutions, the Health Officers who supplied additional data and to the field workers real acknowledge-

Presented November 18, 1946, before the Illinois Welfare Association Annual Meeting, Peoria, Illinois.

ment is due. While the collection of data about the distribution and use of hospital facilities was progressing important socio-economic studies of each area of our state were being made. These have been completed and include table and map demonstration of:

- (1) Population trends in Illinois since 1870
- (2) Percentage distribution of population by age group
- (3) Indices of standards of living
- (4) Distribution of physicians and nurses
- (5) Percentage of births occurring in hospitals
- (6) Percentage of deaths occurring in hospitals
- (7) Mortality and morbidity from significant causes
- (8) Factors relating to cost of hospital care

These studies demonstrate what many of you already know that there are wide areas of our state which are not so favorably affected by the gains of our civilization. These areas, often blocks of contiguous counties, have standards of living below the average of the state; with few available physicians, high birth rates, high morbidity and mortality rates, more than their share of the children and the aged. The same areas demonstrate a paucity of hospitals, nursing homes and county health departments. The hospitals which they have are small, incomplete in the services which they offer, and due to their low occupancy rates, expensive to operate. They are especially costly in relation to the service which they are equipped to provide.

During the time of the survey, which has been the immediate post-war planning period as well as the time of hearings on Senate Bill 191 (The Hospital Survey and Construction Act) community interest in hospitals is greater than it has ever been. The people in some areas are looking to replacement of obsolete hospital buildings, in others to renovation and extension of existing facilities, and a smaller number to the construction of the first hospitals in their communities. Although 115 separate areas have expressed their desires for a hospital construction program, many of the places of least favorable hospital facilities have not been heard from. The people are thinking along the lines of establishing general hospitals to meet the needs of their communities and in some areas they have

inaugurated fund raising campaigns through voluntary subscription, or through taxation, or both. This enthusiasm of the consumer of service for modern up-to-date hospital facilities adds stimulation to the task of planning because it means that the recommendations of the State Study Group will fall on receptive ears and on prepared ground.

In the evolution of a practicable state plan for the construction of adequate hospital facilities there are many interrelated basic concepts. Chief among these is the clarification of the scope of the general hospital. To quote from Dr. Corwin's excellent monograph on hospitals:

"By its very existence a general hospital exercises a powerful influence on the pattern of medical and health care in a community. The degree of its effectiveness varies in proportion to the breadth of vision of its policy makers and administrators, the quality of its medical staff, the cooperative relationship which it establishes with other health agencies, both public and private, and the adequacy of its equipment and physical plant."¹

There is growing acceptance of the fact that the general hospital should be equipped to care for all kinds of illness within the community, directly within its own four walls or indirectly through liaison relationship withoutly specialized institutions. In order to furnish this type of care a hospital must serve a group of people large enough to support the cost of construction and operation and to provide clinical material in sufficient volume to stimulate interest in all categories of diagnosis and therapy.

In determining the recommended size of hospital communities, the State Study Group is guided by the fact that the distance between hospitals must be such that people will have ready access to good care. For hospitals in rural areas a distance of 20 to 25 miles seems generally accepted as not too far for the occasional person at the periphery of a hospital community to go for adequate service. Furthermore, the studies of the cost of operation point to the fact that the larger institutions are more economical to operate and the converse, that general hospitals of less than 50 beds are extremely costly

1. EHL Corwin PHD, *The American Hospital*, Page 194
The Commonwealth Fund, 1946

especially in the light of the incomplete services that these small institutions can provide.

With the foregoing premises in mind the State Study Group is applying acceptable technics for the establishment of hospital communities and the calculation of needed beds for Illinois. The plan in its present state presupposes the need for several categories of general hospitals, depending on the size of the hospital community and the proximity of similar facilities for people throughout the state. The current concepts follow to some extent the pattern suggested by the United States Public Health Service and used by the United States Army Medical Corps so successfully during the war, and include large complete base hospitals, intermediate district hospitals and small local community institutions.

Furthermore, due consideration is being given to functional relationship in the location of each facility. The plan contemplates a liaison relationship between all hospitals so as to make each a part of a system operated on an entirely voluntary cooperative basis. The small rural or community hospital would not be an isolated institution but would enjoy the prearranged privilege of referring complicated difficult cases promptly to the nearest district or base hospital or to education and research hospitals depending on the nature of the case.

The base hospital community should contain at least one hospital of 250 plus beds and provide equipment for the following services: internal medicine, surgery, obstetrics, pediatrics, orthopedics, eye, ear, nose and throat, psychiatry, cancer, communicable diseases including tuberculosis and venereal disease, complete laboratory facilities, diagnostic and therapeutic x-ray equipment, physiotherapy, dentistry and dietetics, in addition to teaching facilities for nurses, interns, residents, postgraduates and dietitians. The hospital in district communities need be almost as complete with the notable exception of less extensive teaching responsibilities.

The qualifications for local community hospitals have been raised to include the standards of facilities recommended by the American College of Surgeons, the American Hospital Association, the American Medical Association and the United States Public Health Service and at the same time giving maximal consideration to

the trade practices, social statistics and health indices of the people in the area.

The need for additional accommodations in the various types of special institutions for the long term cases such as neuromental, tuberculosis, chronic and convalescent, is clearly recognized. With better distribution of general hospitals and with properly organized services within them, it may be possible to meet the needs of some of these patients through local facilities and thereby render in the community a more comprehensive health service. The long term tuberculous, neuromental, convalescent and chronic patients are essentially separate components of the large segment of our people who require extended care which cannot for a variety of reasons be provided in their own homes. These patients, while they do not require intensive use of all the special and costly services of the acute general hospital, do nevertheless require at times every facility of the general hospital. The survey has shown that many of the nursing homes and other places for care of long term patients are not located in the environs of general hospitals or even within reasonable distance of such institutions. For the most part, our currently existing nursing homes are located wherever a large old mansion happened to be regardless of the convenience to doctors, patients or visitors. Furthermore reports from some areas show that as high as 14 and in one case 26% of the beds in general hospitals are occupied by chronics, long term convalescents and life care cases. These types of cases also occupy many of the beds in neuromental institutions. The provision of long term care in the general hospital as currently constituted seems unwise because the cost of operation of general hospitals is proportionately high for long term cases and the particular construction of the acute general hospital building does not lend itself to the best interests of these patients.

The State Study Group is currently calculating the hospital community for general hospitals. Upon the framework of health services therein developed, will be projected the consideration for the particular facilities needed for special groups of patients.

The enactment of Public Law 725, the Hospital Survey and Construction Act, has given added significance to the survey and has kindled

additional interest in hospitals and allied health facilities. This statute provides federal grants in aid for surveys and also for the construction of hospitals. The construction grants are not to exceed one-third of the total cost of construction or reconstruction of projects developed in line with the State Master Plan. Funds to be made available to Illinois are \$2,780,000 per annum for the next five years provided that the next Congress appropriates the amount specified in the statute. The intent of the 79th Congress in providing these grants in aid for construction was that the sparsely settled and low economic areas be given the means to meet their current health needs through construction of hospital and basic public health facilities. Inasmuch as Public Law 725 limits federal aid to one-third cost of construction of any eligible project, there will be communities which cannot meet the other two-thirds cost of needed construction. For this reason, suggestions have been made already that the state appropriate funds to supplement those expected from the federal government for this purpose. It seems likely that such a proposal will be brought to the attention of the General Assembly when it meets next year.

Public Law 725 further requires some guarantee that a local community will be able to meet operating cost once the plant has been constructed. Figures show that operating costs annually total more than one-third of the cost of construction. How can communities unable to meet the cost of construction pay both the cost of construction and operation? Most of the areas in greatest need of hospitals are those in which the ratio of people receiving public assistance is the highest in the state.

One of the most important provisions of Public Law 725 is that it requires participating states to pass a licensing law in order to assure the maintenance and operation of hospitals in accordance with minimum standards.

In conclusion, while considerable progress has been made toward understanding the needs of our communities for general and special hospital facilities and the needs of our communities for general and special hospital facilities and for basic public health services, more time will be required before the final report can be made. This report will include in its scope the general hospital, the tuberculosis sanatorium, the neuro-

mental institutions, the allied special hospitals, facilities for the care of chronic and convalescent patients, as well as quarters for basic public health services. With the anticipated publication of the report of the National Commission on Hospital Care (to be published in January 1947 by the Commonwealth Fund) and the Report of the Illinois Survey and Plan for Hospital Construction, added to the tremendous literature including such outstanding studies as the Bidwell Report, taken together with the work of the Commissions reporting here today, and augmented by the meeting of the State Legislature in January, the time may be ripe for action.

Early action may reasonably stem from this group through their endorsement of a resolution* lending the support of the Illinois Welfare Association to the findings and recommendations of the Illinois Hospital Survey Group.

HYSTERECTOMY IN A SMALL GENERAL HOSPITAL

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EAST ST. LOUIS

Our reasons for presenting this subject are twofold, (1) the controversial opinion as to how the cervix should be dealt with in performing hysterectomy, and (2) the somewhat popular belief that hysterectomy may be enjoying an unfavorable frequency in small hospitals not connected with teaching institutions.

A series of 83 hysterectomies were performed during a 12 month period of August 1, 1945 to August 1, 1946 on the gynecological service of Christian Welfare Hospital, located in East St. Louis. The institution has a bed capacity of 142 patients distributed among medicine, surgery, obstetrics and pediatrics. Like most hospitals of its kind and size, the operating room privileges are available to any member of the staff wishing to do surgery.

Some operators prefer doing a complete hysterectomy in all cases, others, with reasons best known to themselves, do supravaginal hysterectomies with only an occasional complete explora-

*Note — Such a resolution was passed by the Illinois Welfare Association, in its annual meeting, Peoria, November 18, 1946.

tion of the uterus. Both groups have in common a desire to relieve the patient of her distress and prevent malignancy.

It has been estimated by various authorities that cervical carcinoma develops in about 2% of the cases wherein the cervical stump is allowed to remain.

Table 1 shows the incidence of different types of hysterectomies performed.

Table 2 lists age groups composing our series. One death occurred in 83 cases, a short resume is included.

Many authorities have reported higher increase of mortality in supravaginal cases than in complete hysterectomies with the explanation that usually the first procedure is performed on patients presenting greater surgical risk, and secondly, that the leaving of a cervical stump may permit an infective process to develop. Perhaps the liberal use of sulfonamides and penicillin prevented fatal emboli or peritonitis in these cases presented.

Table 3 reveals indications for surgery. The diagnoses are based on the pathology report of

TABLE 1

Number of white patients	79	95.18%
Number of colored patients	4	4.72%
Total number of patients	83	100.00%
Number of complete abdominal hysterectomies	38	45.78%
Number of supra-cervical hysterectomies	36	43.38%
Number of vaginal hysterectomies	9	10.84%
	83	100.00%

TABLE 2

Oldest age of patient having a complete abdominal hysterectomy	61 years
Oldest age of patient having a supra-cervical hysterectomy	58 years
Oldest age of patient having a vaginal hysterectomy	64 years
Youngest age of patient having a complete abdominal hysterectomy	29 years
Youngest age of patient having a supra-cervical hysterectomy	23 years
Youngest age of patient having a vaginal hysterectomy	39 years
Average age for the complete abdominal hysterectomies	43.4 years
Average age for the supra-cervical hysterectomies	43.6 years
Average age for the vaginal hysterectomies	42.0 years
Number of deaths	1

Reason of Death: acidosis following bowel obstruction Supra-cervical hysterectomy performed February 14, 1946, evidence of bowel obstruction February 17, 1946. An exploratory laporotomy was done February 25, 1946. A loop of ileum was found to be adherent to the cervical stump producing the obstruction, this was corrected; however, the patient died on the following day February 26, 1946.

TABLE 3

Reasons for Surgery:	
Fibromyomata uteri or myomata	35
Myomata without pelbic inflammatory disease	30
Myomata with pelvic inflammatory disease	5
Adenomyosis (Endometriosis)	4
Carcinoma (all were adenocarcinoma and of the corpus uteri)	4
Chronic cervicitis	23
Other reasons as Endometritis, Fibrosis uteri, Prolapse, etc.	17

TABLE 4

Number of surgeons	17
Fistulae noted post operatively or reported after discharge	None
Number of women 45 or more years of age in which the ovaries were left in	7
Number of appendectomies performed at the time of the hysterectomy	27
Number of appendicies that were co-incidentally pathological	10

the organs removed and does not necessarily coincide with the preoperative diagnosis of the operator.

Table 4 contains information of interest for conjecture and speculation. The reader will note there were seven women over 45 years in which the ovaries were allowed to remain. We question the advisability of such conservation in light of said experiences with cases of so-called "silent ovarian malignancy" developing in similiar cases so managed, the patient presenting herself for examination only after she has discovered a tumor mass in the lower abdomen and too late to effect a cure for her ovarian malignancy.

The delay in consulting a physician for pelvic examination after hysterectomy is understandable when we realize there is no uterus to bleed from and a large pelvic cavity for a mass to develop without symptoms or detection.

The authors hold that the burden of responsibility rests upon the surgeon in assuming that his particular case will not become such a victim when he does not remove the ovaries when doing hysterectomy in a woman 45 years old or over.

Table 4 also shows that an appendectomy was performed in 27 of the 83 cases. There were ten pathological appendices in the group, this indicates the advisability of abdominal exploration after completion of pelvic work before closing the abdomen.

It is noted that cervical cauterization was not done in any of the supra-vaginal cases, a plan recommended by many authorities where a cervix is not removed.

A careful digest of information afforded a basis for the following conclusions:

1. No case of hysterectomy in the series was performed for cervictal malignancy. Could this mean that we are not seeing cancer early enough to permit surgical removal? Or could the cancer be hidden in those cases where the cervical stump was left in?

2. There were 17 different operators who contributed to this series of cases, representing family physicians, general surgeons and a gynecologist.

While the purpose of this paper is not to congratulate the members of our staff, it should be said in defense of the family doctor that there was only one death and no incidence of bladder or rectal injuries as a complication.

3. No pregnant uteri were removed since an A-Z test is a prerequisite for all patients under 50 that come in for hysterectomy.

4. The one fatality of intestinal obstruction occurred in a case of a supravaginal hysterectomy with a loop of small bowel adherent to the cervical stump. Need we emphasize the point of proper peritonization or pelvic toilet, thereby preventing raw surfaces.

5. About 5% of these cases showed endometrosis which is being recognized more frequently in or adeno myoma — a pathological condition young women.

EPIDEMIC DIARRHEA OF THE
NEWBORN (NEONATAL ENTERITIS)

Clinical Picture and Prevention
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CHICAGO

When The Cradle opened in 1923 for the care, until their adoption, of thirty-six homeless newborns, the nursery and diet kitchen technic of a leading Baltimore hospital was expected to meet any emergency. On admission, the infant was placed in an isolated, cubicled crib with "special precautions" technic for two weeks. If well at the end of that time, the infant was transferred to a six to eight crib room in the general nursery. Morbidity and mortality rates remained

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low for four years. Until 1927, twenty deaths had occurred — a mortality rate of 4.8 per cent. Eighteen of the deaths were due to epidemic diarrhea of the newborn (then called neonatal enteritis). Seven of these infants were admitted with the disease or developed symptoms within two weeks after admission. Eleven contracted the infection more than two weeks after their arrival. Because epidemic diarrhea was often absent for months at a time, there seemed to be no reason to question the efficacy of the precautionary technic. During 1927, however, a rapidly spreading epidemic of diarrhea occurred. Of the one hundred fifty infants admitted that year, eighty-six contracted the infection; twenty-seven died — about 32 per cent of the infected infants.

TWO TYPICAL CASES

Two newborns (No. 462 and No. 463), from Chicago maternity hospitals, were admitted to The Cradle on the same day. Both infants appeared normal. Both contracted diarrhea after admission. The one died within a few days; the other developed complications, including purulent otitis media and mastoiditis. Because they typify the two forms of enteritis encountered in the epidemic which followed, excerpts from the clinical, nursing, and postmortem notes follow.

Clifton (No. 462) was born January 17, 1927; weight, six pounds six ounces. When admitted on February 3, 1927 he weighed six pounds ten ounces. Entrance examination was negative. Blood, stool, rectal temperature, urine, nose and throat cultures were normal. He progressed well from February 4 to 8; the stools were apparently normal. February 9, his weight reached six pounds fourteen ounces, but the rectal temperature was 100.4° F. He was fretful, had moderate abdominal distention, refused part of each feeding, and vomited. He passed four semi-liquid stools with curds and mucus; the last two contained blood. On February 10, the rectal temperature was 103.4° F. and he looked extremely toxic. The abdominal distention and pallor had increased. Respirations became irregular; he expired forty-eight hours after the onset of symptoms.

Anatomic Diagnosis was as follows: Acute hemorrhagic enteritis; acute hyperplasia of mesenteric lymph nodes; acute fibrinopurulent peritonitis.

Sybil (No. 463) was born February 1, 1927, and weighed six pounds ten ounces. She was admitted on February 3, 1927, weighing five pounds fourteen ounces. Entrance examination was negative. Nose and throat cultures, vaginal smears, blood, urine, stool, and rectal temperature were normal. From February 4 to 15 she was apparently well. There was a good gain in weight; the stools were apparently normal. On February 16, her weight was six pounds ten ounces; rectal temperature, 100.4° F.; she was fretful, had moderate abdominal

distention, refused food, vomited, looked pale and slightly listless. She passed four semi-liquid, brown, foul, musty odored stools. On February 17 and 18 the toxicity increased; there were four stools daily as above; the weight decreased four ounces. By February 19 the weight had dropped to five pounds ten ounces; the rectal temperature reached 102.8° F., the pulse was 170, the respirations were 44. Bilateral myringotomy was performed by the attending otologist. On February 21 the weight was five pounds four ounces; rectal temperature 103° F.; abdominal distention had increased. She was transferred to a hospital where a bilateral mastoidectomy was performed; soon thereafter the infant expired.

Anatomical Diagnosis was as follows: Bilateral, acute, suppurative otitis media and mastoiditis; acute, generalized fibrinopurulent leptomeningitis and ethmoiditis; septic thrombosis of lateral venous sinuses; hyperemia of intestinal wall; hyperplasia of mesenteric lymph glands; submucous hemorrhages of stomach and colon. Smears and cultures from ear and mastoid wound revealed gram positive streptococci in chains; spinal fluid culture, *B. coli*.

SYMPTOMATOLOGY

(Sequence of symptoms based on The Cradle epidemic of 1927.)

It is most important that the first case of epidemic diarrhea of newborns in a nursery should be recognized as early as possible, so that further admissions can be promptly halted and a spread of the disease prevented.

In The Cradle epidemic, the earliest symptoms to arouse suspicion were not of diagnostic value. Many of these infants at first showed only such nonspecific symptoms as stationary weight, food refusal and four or five stools a day. At first, the stools often contained mucus and curds, very rarely visible blood. Cardinal symptoms such as pallor, listlessness and water stools were seldom present during the prodromal period.* As a rule, not until after a few days did distention of the abdomen, repeated vomiting and more frequent liquid stools set in. Certain diagnosis could often be made when such symptoms appeared. Listlessness, continued rapid weight loss, and toxicity made the diagnosis certain. A change from the pink to a greyish hue sometimes occurred overnight. A diagnostic aid was the ashen color of the skin. A progressive decrease in tissue turgor, in spite of daily hypodermoclyses was of prognostic significance. Regardless of sequence, whenever this chain of symptoms occurred, the

*Many of the infants admitted with frank symptoms of the disease were promptly transferred to a neighboring isolation hospital.

diagnosis was unquestioned, especially if the stools became watery in spite of therapeutic dietary measures (protein milk, boiled breast milk).

Fever was usually slight at first. There would often be minor daily fluctuations. As the disease progressed, the rectal temperature often rose above 102 or 103° F., especially in fatal cases with respiratory complications such as bronchopneumonia. As a rule, the higher the fever, the more precipitous the weight loss.

DIFFERENTIAL DIAGNOSIS

During the prodromal period, i.e., before listlessness or toxicity was present, it was at times, difficult to differentiate epidemic diarrhea from diarrhea due to overfeeding, improper food, low tolerance for carbohydrates, effect of laxatives or a sugar-rich diet of the nursing mother. Especially was this true when no frank case had been in the nursery for weeks. However, if intestinal symptoms did not improve promptly when the caloric value of the food was drastically reduced, epidemic diarrhea was usually suspected and the infant promptly isolated or sent to the hospital. Diarrhea due to parenteral infections such as the common cold, tonsillitis or pyelitis were rarely encountered in the neonatal period. Furthermore, the sequence of symptoms was usually different; the diarrhea was secondary and usually responded to dietary treatment.

COMPLICATIONS

Exacerbations, complications and sequelae were frequently encountered. Terminal complications, were the rule in the twenty-seven fatal cases. In some infants fine rales were heard at the base of one or both lungs. Examination of the ear drum membranes in eleven infants revealed acute otitis media. Incision of the drum membrane by the otologist failed to improve the general condition. Mastoidectomy, performed in five infants, did not alter the downward clinical course.

The clinical course of the disease varied. Infants who recovered usually improved very slowly. Seldom before five weeks did the weight return to what it was at the onset of the disease. Improvement in weight curve and decrease in listlessness served as the best index of the infant's condition. In the fatal cases dehydration and toxicity kept pace with the weight loss. As the pallor increased, the eyes and fontanel became more sunken. The facies became more fixed and

mask-like from day to day. A day or two before imminent death the half-open eyes were usually covered with a translucent film. In the preagonal period, the vomitus often contained minute flakes of darkened blood. In the twenty-seven infants who died, the duration in the fatal cases was nine days. As a rule, premature and immature infants offered the poorest resistance to the infection. Infants who died early in the course of the disease and who were examined without delay were far more likely to show minute ulcers in the intestinal wall — usually the only evidence of enteritis. Those who lived longer seldom showed visible intestinal lesions, but had manifest evidence of secondary respiratory infections, especially of the ears and lungs.

ETIOLOGY

Doctor Gladys Dick, a founder and benefactor of The Cradle, made an exhaustive study of the 1927 epidemic. In collaboration with Doctors George Dick and J. Lisle Williams¹ the Morgan dysentery bacillus* was isolated from minute intestinal lesions of every fatal case only when the proper culture medium was used. They found intravenous injection of broth cultures and of sterile filtrates highly pathogenic for rabbits. The animals developed hemorrhagic enteritis. They concluded that this bacillus was the primary cause of the epidemic.

PREVENTIVE MEASURES**

Repeated isolation of the Morgan dysentery bacillus in the fatal cases led to the conclusion that The Cradle epidemic of 1927 was of intestinal origin. It was manifest that such customary procedure as closing parts or all of the nursery, painting and scrubbing of floors and walls, complete change of nurses, et cetera failed to bring the epidemic to an end. It seemed logical that the hands of the nurses contaminated in changing the diapers of an infected infant, might in spite of washing, contaminate the feedings of another infant in various ways, as in handling nipples while placing them on the bottles. Therefore, drastic precautionary measures were in-

*Frant and Abramson² report other pathogens also as the etiologic factor in epidemic diarrhea. In a recent British epidemic a virus was isolated.

**Although outside the scope of a paper on clinical symptoms, the unparalleled prophylactic results from the time when Dick aseptic technic was put into effect in 1928 until the present time, warrants a summary of the original technic and of the modified routine in use today.

stituted to safeguard all food and supplies. Bottles, nipples, feedings and supplies for infants and nurses — such as gowns and masks — were sterilized by autoclaving at fifteen pounds for one hour. At first, a fresh pair of sterile rubber gloves were worn by the nurses for each feeding of each infant.* Diapers of all infants were left in lysol solution immediately on removal. Nurses who fed infants were not permitted to change diapers. Very soon after these precautionary measures were instituted, symptoms of the disease no longer appeared in the other infants, and the epidemic came to an abrupt end.

RESULTS

During the eighteen years since the Dick individual aseptic nursery technic has been in use, several minor changes and short-cuts have been introduced, especially during the past five years, without the occurrence of any hand-borne cross-infection.³ Numerous infants with epidemic diarrhea have been admitted; six of them were fatal cases, but no other infant contracted the disease. This is the best evidence that the technic is flawless.

Essentials of the present technic:

1) Each unit consists of twelve cubieled cribs;** each cubicle is equipped with individual, sterile supplies. Everything within the cubicle is considered "clean" for that infant, but "contaminated" for any other infant.

2) A sterile mask and short-sleeved gown are worn by all who enter a nursery.

3) Hands and forearms are cleansed as follows:

5-Minute Scrub

Before entering nursery
After handling "infected" infant
After touching infectious material
After using handkerchief

Technic —

Hands and forearms are
Wet under faucet

Lathered and scrubbed with liquid soap and sterile brush

Rinsed under faucet

Dried on clean individual (or paper) towel

Distributed with about 2 cc. (30 drops) 70% alcohol

Allowed to evaporate before an infant or supplies are touched.

1-Minute Wash

Between well infants

After handling diaper with stool

After touching mask, door, light switch, etc.

Technic —

Same as above (except that no brush is required).

CONCLUSIONS

The clinical picture of epidemic diarrhea of the newborn (neonatal enteritis), encountered at The Cradle in 1927, was usually:

a) Prodromal period — lack of appetite, increase in the number of stools, progressive daily weight loss.

b) The most frequent sequence of cardinal symptoms was — vomiting, abdominal distention, ashen gray color, listlessness, precipitous loss in weight, watery stools and toxicity.

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The tragic fact remains that even today among the infectious diseases in the State tuberculosis is the master thief of human lives and efficiency. The tubercle bacillus is still unconquered and a major cause of disease and death. Rep. of Comm. on Tbc., N. H. Med. Soc., N. E. Jour. Med., Sept. 26, 1946.

Because of peculiarities in its pathology and epidemiology, tuberculosis, especially the pulmonary form, has attained world-wide prevalence. The mode of transmission is simple and while there are great variations in susceptibility, no class or subdivision of mankind is immune. These peculiarities make it reasonably certain that no nation could eradicate the disease and by artificial barriers prevent its introduction from without. Even if such procedures were theoretically possible, the limitations which they would place upon travel and commerce would make them impracticable. James A. Doull, M.D., NTA Transactions, 1946.

*Since 1929 all feedings (and drinking water) are autoclaved with gauze or pyrex nipple covers over the nipple on the bottles.

**Routine examination of newborns should not be permitted in the nursery proper. An adjacent examining room should be stocked with sterile masks and gowns, and equipped with facilities for cleansing hands, etc. The faucet should be knee-controlled. Obstetrical hospitals of tomorrow will not have a newborn nursery. Mother and infant form the physiological unit. This will be the keystone to the hospital care of the obstetrical patient and her infant.

NITROUS OXIDE—PENTOTHAL ANESTHESIA

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Many papers enthusiastically endorsing the use of pentothal for major surgical procedures have recently appeared^{1,2,3,4,5}. Those whose anesthesia experience is largely technical could easily be misled by these favorable reports, because certain pertinent facts are omitted or obscured. Usually, only passing reference is made to the fact that supplementation with gas has been the general rule. Failure to emphasize this has led to unwise attempts by the inexperienced to obtain satisfactory anesthesia with pentothal alone. If such an administrator is properly cautious, the relaxation will be poor. If attempts are made to satisfy an exacting surgeon accustomed to ether or spinal anesthesia, an overdose of pentothal is required. This has certainly been true in the experience of the author and other anesthesiologists^{6,7,8}. It is more than probable that surgeons reporting favorably on the use of pentothal have seldom been provided with really good working conditions before, otherwise they would be more critical.

Combined with local anesthesia or some inhalation agent, pentothal has a wide range of usefulness⁶. The experience of a group of anesthesiologists with one combination, nitrous oxide-pentothal, is presented here to shed some light on the problem of pentothal's useful scope. It is important to emphasize that the *combination* of nitrous oxide and pentothal produces quite a different sort of anesthesia from either one alone.

(1) *Anesthesia with Nitrous Oxide**.

In some quarters, nitrous oxide is looked upon as an asphyxiant. While this is far from true, it is *necessary* that heavy pre-anesthetic medication be used, to achieve anesthesia with the safe proportions of 80% nitrous oxide and 20% oxygen. It is essentially a weak anesthetic. The alternative to heavy premedication is the use of a basal narcotic. Avertin may be used for this purpose, but judgment of dosage is difficult and postoperative recovery is slow.

The good qualities of nitrous oxide are the absence of any effect on respiration and metabolism, the prompt induction and recovery, and its non-explosiveness.

(2) *Anesthesia with Pentothal*

Contrariwise, pentothal is looked upon in other places as the answer to all anesthetic problems. This attitude stems from the apparent ease of achieving deep anesthesia. Those who hold this view are seldom those who were trained to think of anesthesia as an alteration in physiology, (particularly of respiration), but rather those who think of anesthesia in terms only of method and effect².

Barbiturates are not intrinsically analgesic drugs. Hence, when they are used to provide narcosis deep enough to prevent reaction to painful stimuli, depression of the respiratory center occurs, all out of proportion to the degree of muscular quietude. There is evidence that when the respiratory center is depressed in profound barbiturate narcosis, the initiation of respiratory impulses comes from the carotid-aortic chemoreceptors, which respond to the hypoxia of the depressed state⁹. If this hypoxia is continued, serious damage to the cells of the respiratory center will occur. Eventually the respiratory center will be unable to respond, even after the pentothal narcosis ends, because of this injury.

Even when the depth of narcosis may not have been great enough to cause hypoxia, depression of the respiratory center may be severe enough to cause prolonged apnea after the stimulation of the operative procedure ceases. Patients have been known to die immediately after being in apparently good condition on the operating table. The relative overdose becomes absolute, and being no longer stimulated by the operative procedure, the respiratory center fails to maintain automatic breathing. Should the tongue relax in the throat, the possibility of such respiratory arrest is even more likely.

In spite of these dangers, pentothal has advantages too obvious to be overlooked. Administration is technically simple, induction is pleasant and quick, muscular relaxation is good (when pain is controlled by other means), and recovery is fairly prompt, with few sequelae.

*It is implied throughout this paper that at least 20% oxygen is administered with the nitrous oxide.

(3) *Summary of the Qualities of N₂O and Pentothal.*

	N ₂ O	Pentothal
Analgesia	XXXX	X
Relaxation	O	XXX*
Respiratory depression	O	XXX
Metabolic disturbance	O	X
Pleasant & easy induction	XX	XXXX
Rapid & easy recovery	XXXX	XX
Explosion hazard	O	O
Ease of administration	X	XXX

*When analgesia is supplied by another drug.

(4) *The Combination of N₂O and Pentothal.*

The principle advantage of the combination lies in the first two qualities just noted. Each drug supplies what the other lacks. N₂O has the analgesic power so lacking in pentothal. In the presence of this pain blocking, pentothal provides good relaxation.

Since it is unnecessary to "push" the pentothal to prevent reaction to painful stimuli, respiratory depression need not occur. Moreover, the analgesic qualities of nitrous oxide are adequate in concentrations of from 50%-80%, obviating any danger of hypoxia. Decreasing the amount of pentothal has the further virtue of minimizing metabolic disturbances such as respiratory acidosis.

(5) *Technique*

To simplify the procedure so that one anesthetist can safely manage the entire procedure, the intravenous apparatus must be arranged so as to minimize manipulations. Several methods have been proposed. The feature common to all is that there be a flexible link of rubber tubing between the needle and syringe, so that the needle can be anchored in place and will not shift when one-handed manipulation of the syringe is necessary. Turning the bevel of the needle downwards improves its position in the vein, allowing the needle adaptor to be strapped flat on the arm, without any pad of gauze. For any procedure lasting more than a few minutes, fixing the needle firmly is essential to maintaining the venipuncture. This cannot be done as easily with the bevel turned upwards.

(a) The simplest pentothal apparatus consists of a length of fine rubber tubing between the needle and a syringe lying near the patient's shoulder within easy reach of the anesthetist. One may insert the needle by retrograde venipuncture, to decrease the tubing dead-space. A

clamp or stopcock presents backflow of blood.

(b) Various mechanical syringe holders are on the market, most of them having screw devices to push the plunger evenly. Few of these are worth the cost. A small home-made spring-clip can be used to hang the syringe on the ether screen or intravenous stand.

(c) A continuous drip of 1/2% to 1% pentothal is used by some anesthetists¹ to provide the basal narcosis for nitrous oxide. It is said to be very satisfactory, but the possibility exists that a fast enough flow could not be obtained during a period of strong surgical stimulation. Limitation on the flexibility of dosage is always a handicap during general anesthesia of any kind.

(d) The most satisfactory arrangement we have yet found is a continuous drip of saline to keep the intravenous needle open, with 2% pentothal added from a syringe at a "Y-piece" near the needle. Slow additions of pentothal may be made to the stream of saline, or the saline may be clamped off, and rapid, direct injection of pentothal be given.

Except when making occasional additions of pentothal with one hand, the anesthetist has both hands free to hold the mask, maintain a clear airway, operate the gas machine, and keep the usual records of the patient's pulse, blood pressure, respiration, etc. A clamp or stopcock on the pentothal tubing prevents backflow into the syringe.

(6) *Procedure of Administration*

Preanesthetic medication is generally only moderately heavy. Morphine grains 1/8 to 1/6 is adequate. More important is the use of atropine or scopolamine in doses of grains 1/200 to 1/150. These drugs prevent oral and pharyngeal secretions which might irritate the larynx during anesthesia, and are also believed to diminish reflex laryngeal irritability. Morphine and atropine or scopolamine are given together about 1 1/2 hours prior to induction, so that maximum respiratory depression has passed before the depression of anesthesia begins.

For the patient's comfort, we start with pentothal, to achieve unconsciousness before applying the mask. (In children, or those with abnormal fear of needles, it is sometimes easier to begin with the gas.) With the patient merely asleep, the mask is applied and a continuous fast flow of

80% N₂O-20% O₂ is begun. The blow-off valve on the mask is left open, so that all atmosphere except the desired gas mixture is washed out of the lungs. This "washing out" period should begin at least five minutes before the first incision is made, so that the blood will be well saturated with nitrous oxide. No attempt to achieve complete anesthesia with pentothal is made, for any marked decrease in tidal volume of respiration would prevent saturation with nitrous oxide. Small additions of pentothal suffice to maintain anesthesia.

A moderately large injection of pentothal is often made a minute or so before the operation begins, and the skin of the shoulder is tested with a towel clip to assure oneself that adequate analgesia and muscular quietude are present. A further period of saturation with 80% nitrous oxide may be necessary. If the operative procedure cannot be delayed, it is permissible to add another injection of pentothal, provided respiration is not depressed unduly, and that nitrous oxide saturation is then continued.

After another 5-10 minutes, or when the painful period of handling the skin edges is passed, the concentration of nitrous oxide is reduced to 50%-70% and continued at that level throughout the operation. Whenever there is evidence of increasing muscle tension, 2-5 cc.'s of pentothal are added. There is no other reliable sign of light anesthesia with pentothal, either alone or in combination with nitrous oxide.

(7) *Scope of Usefulness*

The quality of anesthesia with this combination closely resembles that with cyclopropane. Nitrous-oxide-pentothal anesthesia may be used for all operative procedures not involving the upper air passages, neck, and face. Even these may be done safely if the throat has been previously anesthetized topically, and an endotracheal tube inserted¹⁰.

This is no mere technical whim. The serious consequences of pentothal anesthesia are not confined to the postoperative period, but are present during administration, too. Should severe depression occur, the anesthetist must be able to do efficient artificial respiration by inflating the lungs with oxygen. During head and neck operations, the only way to do this without disrupting the surgical field is via an endotracheal tube. Another complication of pentothal

anesthesia that is most serious during such operations is glottic spasm. The laryngeal reflexes remain hyperactive during pentothal anesthesia. The respiratory center is less responsive to the impulses that normally would cause the cords to re-open spontaneously after similar spasm during ether anesthesia. This is more than enough justification for keeping the glottis "propped open" with a tube, especially where blood from the mouth, nose or accessory sinuses might act as irritant to the cords. The tube has the further advantage of preventing aspiration of blood during such operations. The throat should first be anesthetized by spraying with cocaine 10% while the patient is still awake. The tube may be inserted then, or after anesthetizing with pentothal. Intubation should never be attempted without preliminary topical anesthesia of the cords, lest the attempt at intubation itself cause cord spasm after pentothal anesthesia has begun.

Pentothal, alone or in combination with nitrous oxide, should not be used for incising neck abscesses unless the glottis is intubated first. The hyperactivity of the carotid sinus mechanism may lead to circulatory collapse, and the swelling of the region may make resuscitation impossible unless the anesthetist has this foolproof avenue of oxygen administration afforded by an endotracheal tube.

Upper abdominal operations in robust subjects may be too much for the combination unless one has curare available. The dangers of intercostal paralysis with curare must be considered, and one must be prepared to perform efficient artificial respiration when this drug is used. It is difficult to add ether to the nitrous oxide unless the pentothal is discontinued early.

Nitrous oxide-pentothal is safe for patients with heart disease, even recent coronary occlusion, because of the excess oxygen available. It should be used with great caution in those with respiratory disease, or where mucus may be present, since the glottic reflex is overactive with pentothal and intractable obstruction may occur.

It has a wide range of usefulness in patients who are very ill or weak, and in the aged. Very little pentothal will suffice, and full recovery from both drugs will be rapid, since metabolic changes during anesthesia are minimized. Procedures involving the electrocautery or other

electrical hazard, and which require moderate to deep anesthesia, are ideal situations for the use of nitrous oxide-pentothal. Of course, it goes without saying that patients unanimously agree that it is the best from their viewpoint.

In the author's experience, nitrous oxide-pentothal anesthesia has been safe and satisfactory in some 533 cases in an Army General Hospital. The principal use was for orthopedic operations on the upper extremities. These procedures required good muscular relaxation and often involved considerable manipulation of the skin which is rich in pain nerve fibres. Relaxation and analgesia were quite satisfactory. The operations lasted from $\frac{1}{2}$ to 4 hours, mostly about 2 hours. Rarely was more than 2 grams of pentothal used. In prior civilian practice, nitrous oxide-pentothal was widely used for the poor risks just mentioned. It is believed that since this combination of drugs developed spontaneously in so many locations in and out of the Army, that its virtues must commend itself

to many, and that its use will spread considerably in the future.

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PNEUMONIA FOLLOWING CHEST INJURY PREVENTABLE WITH PENICILLIN

Pneumonia, following injury to the chest, can be prevented with large doses of penicillin or sulfadiazine, according to Edward Phillips, M.D., of Oakland, Calif.

Writing in the January 18 issue of *The Journal of the American Medical Association*, Dr. Phillips presents his observations on 73 patients treated at Permanente Foundation Hospital for pneumonia following injury to the chest.

Of these 73 patients, 43 had fractured ribs, one had a fractured shoulder blade and one had a fractured breast bone.

The author cites two investigators who demonstrated by animal experimentation how a blow to the chest, with or without fracture of the ribs, can produce injury to the lungs. The blow stimulates the vagus nerve, which extends from the cranium to the lungs, to contract the bronchial tubes which results in a partial collapse of the lung. This collapse area becomes infected because it lacks aeration.

Injecting tropine into the veins, which paralyzes the terminal fibers of the vagus nerve, will prevent or minimize the chances of collapse and infection following injury to the chest, states the author. Large doses of penicillin and sulfadiazine will sterilize the lung area.

Additional facts regarding the 73 patients follow:

—In 54 patients (74 per cent) pneumonia developed only on the same side as the injury.

—The majority of patients had a mild type of pneumonia.

—Over 92 per cent of pneumonia cases occurred within six days of the injury.

—Over 50 per cent of the patients recovered within one week.

—Three patients died with a resultant mortality rate of 4.1 per cent.

Twenty-six consecutive patients with severe chest and lung injuries who were treated with large doses of either penicillin or sulfadiazine did not contract pneumonia or other complicating infections.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS COUNTY

Society News.—Dr. Daniel L. Sexton, St. Louis, discussed "Treatment of Hyperthyroidism with Anti-Thyroid Drugs" before the Adams County Medical Society in Quincy, February 10.

Resolution Disapproves Administrative Policies at Blessing Hospital.—A resolution was adopted January 7 by the executive council of the Adams County Medical Society expressing the disapproval of the present administration policies of Blessing Hospital, Quincy, particularly as they apply to the infringement on the private practice of medicine. The action was based on the plans being made by the administration of Blessing Hospital to employ full time medical specialists on a salary basis and to sell their services to patients in the hospital as well as to the general public. The resolution pointed out that the American Medical Association and the Illinois State Medical Society have consistently opposed the practice of medicine by corporations of any kind, other than physicians and that the Adams County Medical Society, a number of years ago, passed resolutions that no Adams County hospital "shall be permitted to engage in any form of contract practice with any individual, or group of individuals, for any purpose other than pure hospitalization."

The action resulted in a special meeting of the Adams County Medical Society, January 15, at which a special committee was designated to attempt to cooperate with the board of trustees of Blessing Hospital and the advisory board of St. Mary's Hospital, also of Quincy, especially with regard to the infringement of the private practice of medicine by hospitals in general and to seek to better the relations between the administration of both hospitals and the physicians of Adams County.

BOND COUNTY

Personal.—Dr. Harry D. Cartmell, Greenville, is planning to retire, according to a notice in the *Greenville Advocate*.

CHAMPAIGN COUNTY

Personal.—Dr. James M. Kennedy, New York, has been appointed to the staff of the department of pediatrics at Carle Memorial Hospital, Urbana.

Society News.—Dr. Charles E. Galloway, associate professor of obstetrics and gynecology, Northwestern University Medical School, Chicago, addressed the Champaign County Medical Society, February 13, on "Diagnosis of Cancer of the Cervix."

COOK COUNTY

Capps Prize Goes to Matthew Block.—The 1946 Joseph A. Capps Prize for Medical Research of \$400 was awarded to Dr. Matthew Block, Brooklyn, for his work on "Sequelae of Trench Foot: Anatomic Study." Dr. Block graduated at the University of Chicago School of Medicine in 1943. The Capps prize is awarded for the most meritorious investigation in medicine, in the specialties of medicine, or in the fundamental sciences, provided the works has a definite bearing on some medical problem.

Evanston Fluorine Research Project.—After some three years of planning, a program was activated February 17 whereby 1 part of fluorine will be added to each million parts of the water supply of Evanston in a research project which it is hoped will limit or check tooth decay in Evanston and Skokie. The examination of 4,400 school children in these communities in two groups, 7 to 9 years of age, and 12 through 14, was completed February 7. The younger group will be reexamined within a year and the older group after two years. The program, based on a survey made several years ago by the U. S. Public Health Service, is sponsored by the Evanston Board of Health, the State Dental Department and the Zoller Dental Clinic of the University of Chicago. The survey is said to have revealed that children in Evanston and some other suburbs using Lake Michigan water, which is fluorine free, suffered almost three times more tooth decay than children in certain inland cities where

the water contains a minute trace of fluorine. The commissioner of health of Evanston, Dr. Winston H. Tucker, who is working with Dr. J. Roy Blayney, director of the Zoller Clinic, on this research program said that it remains to be seen whether artificially added fluorine is as effective as that found as a natural element in drinking water. The fluorine solution to be added is tasteless, colorless and odorless.

Hematology Research Foundation.—This organization, comprising a group of 1,250 civic minded young women, raises funds for research on blood diseases and related problems. All funds are allocated by the foundation's medical advisory council, whose members are Drs. Anton J. Carlson, Ludvig Hektoen, Andrew C. Ivy, Italo F. Volini, Raphael Isaacs, Louis R. Limarzi and Otto Saphir. The foundation has announced that the Ruth Reeder Fellowship has been awarded to Dr. Samuel S. Leiter, a graduate of the University of Pennsylvania School of Medicine and recently released from the navy after three and one-half years in submarine service. The Annette and Philip M. Marcus Fellowship has been awarded to Dr. B. Elizabeth Armstrong, a graduate of the University of Illinois Medical School now serving with the hematology laboratories of the Michael Reese and Cook County hospitals.

Hospital News.—A campaign for \$1,375,000 for a four story addition and expansion program at St. Francis Hospital, Evanston, is being organized by the Sisters of St. Francis, who conduct the institution. Bed capacity will be increased from 404, including 74 bassinets, to 474. This is the first time that the hospital has made a public appeal for funds since it was opened in 1900, it is reported.—A city-wide campaign for \$250,000 to meet increased burdens on Provident Hospital started recently.

Citizens of Two Suburbs to Be X-Rayed.—A project to x-ray the chest of every man, woman, and child over 13 in Maywood and Melrose Park was announced February 15 by the Tuberculosis Institute of Chicago and Cook County. Dr. Earl E. Kleinschmidt, director of the institute, said the project will be sponsored in cooperation with the Maywood-Melrose Park Health Center committee, the Maywood Community Planning Council, local health commissioners, the Cook County Department of Public Health and the Illinois Department of Public Health. The institute's mobile x-ray unit was to start operation in the two villages early in April, but an educational campaign was launched before that time. Maywood and Melrose Park were selected for the project, first of its kind in Cook County, because they offer a cross-section of average conditions found elsewhere in the county's suburbs. The population of Maywood and Melrose Park are 30,000 and 13,000 respectively.

Medical Care of Tribune Employees.—The annual report of the medical department of the Chicago *Tribune* for 1946 was recently made available by

Dr. Theodore R. Van Dellen, medical director. Dr. John Mart, medical counselor, held 1,291 interviews during the year with employees who desired advice, 59 consultations regarding members of Tribune employees' families, and, in addition, checked 2,144 investigative reports. The staff of nurses received 13,809 visits from employees for first aid, care, and advice. In addition, the visiting nurse made 2,094 house calls on those who were confined to bed. The biggest function of the medical department is in treating minor injuries, disabilities, colds and digestive upsets. If their conditions warrant, employees may seek further advice from Dr. Mart or from their own physician. An even more important function in many instances is early diagnosis of what may become a dangerous illness. At least twelve cases of acute appendicitis were diagnosed early by the medical department. Other work of the department during the year included the compilation of 2,823 confidential medical charts and 249 medical service histories. The staff made 156 laboratory tests, arranged 45 blood transfusions for Tribune employees and their families, and determined the blood type of 15 persons.

A total of 1,352 investigations were made where private physicians were treating Tribune employees, and 742 investigations were made concerning employees without medical attendance. The number of employees who received a series of injections of influenza vaccine, made available without charge by the Tribune, was 1,101. "We will not know the results of this type of prophylaxis until the end of spring, but there have been some employees who were extremely ill with influenza who did not take the vaccine," Dr. Van Dellen reported. "On the other hand, some who received the vaccine have developed symptoms of the disease, but in no case were the effects severe or disabling."

Health Institute Assets Go to Northwestern.—The Public Health Institute has been closed. Founded in 1920 as a non-profit clinic for the treatment of venereal diseases, the institute had been functioning under the sponsorship of a group of prominent business men. Newspaper reports indicated that the assets, which are small, were to be given to Northwestern University Medical School to establish a fund for the treatment of venereal disease and other public health problems.

Society News.—"Methods of Plastic Repair" was the title of an address given by Dr. John F. Pick, Chicago, before the Henry County Medical Society in Kewanee, February 12, the Will-Grundy Medical Society in Joliet, February 13, and the La Salle County Medical Society in La Salle, February 13.—Dr. Sara A. Janson, the first woman graduate of Rush Medical College, addressed the First District of the Illinois State Nurses Association recently.—Dr. Louis B. Newman, chief of the medical rehabilitation service, Veterans Administration Hospital, Hines, presented a paper on "Physical Medicine in Spinal Cord Injuries" during the Midwestern

Sectional meeting of the American Congress of Physical Medicine at the Percy Jones General Hospital, Battle Creek, Mich., February 14.—Dr. Meyer A. Perlstein, Chicago, discussed "Electroencephalography in Epilepsy" before the American Academy of Pediatrics in Pittsburgh, February 25. He also held a three day institute on cerebral palsy at the Kellogg School in Battle Creek, March 3-5, under the auspices of the Michigan Society for the Crippled.

Branch Meetings.—The North Shore Branch of the Chicago Medical Society was addressed March 4 at the Edgewater Beach Hotel by Drs. Emil D. W. Hauser, assistant professor of orthopedic surgery, Northwestern University Medical School, on "Orthopedic Treatment of Poliomyelitis;" Archibald L. Hoyne, medical director, Municipal Contagious Hospital of Cook County, "Diagnosis and Medical Treatment of Poliomyelitis," and George P. Guibor of Children's Hospital, "The General Practitioner's Role in the Early Diagnosis of Oculo Motor Imbalance."—Dr. Philip Thorek addressed the Englewood Branch of the Chicago Medical Society, February 4, on "Diagnosis and Treatment of Intestinal Obstruction."—Dr. Irving Wright, associate professor of medicine, Cornell University Medical College, New York, discussed "Use of Anticoagulant Therapy in the Treatment of Diseases of the Heart and Blood Vessels" before the North Side Branch of the Chicago Medical Society, February 6.

University News.—"What May Be the Future of Physicians" was the title of an address recently presented by Dr. Josiah J. Moore, director of the Moore Clinical Laboratories and Treasurer of the American Medical Association, before the students of the University of Illinois College of Medicine.—Dr. Otis R. Rice, St. Luke's Hospital, Chicago, discussed "The Role of Religion in the Healing Process" before a recent assembly of the students at Illinois.—Dr. James T. Irving, head of the department of physiology, University of Capetown, South Africa, started in February a ten weeks' study at the University of Illinois College of Dentistry on tooth formation and calcification. The work is being carried on with Dr. Isaac Schour, head of the department of histology at Illinois. Dr. Irving is credited with discovering the ringlike growth of the teeth, indicating the biologic record of the health and nutritional status of the growing child.

Report on Epilepsy.—About eight severe cases of epilepsy are being diagnosed, studied and treated each week in the epilepsy clinic at the University of Illinois, according to a recent statement by Dr. Frederic A. Gibbs, director of the clinic. Pointing out that Illinois alone has 40,000 sufferers from epilepsy, Dr. Gibbs said that the disease must be understood by the people if it is to be controlled. There are no hospitals exclusively for epileptics in the state and the university clinic is the only one

specializing in this disorder, receiving patients with so severe a disorder that they have not responded to treatment by other doctors. Patients for the clinic come from three sources:

1. The university's division of services for crippled children, which refers patients screened in children's clinics throughout the state. This division supplies funds from its budget to help support the clinic.
2. The division of rehabilitation, state department of vocational education, which screens and refers patients and pays for their treatment at a percapita rate.
3. Patients throughout the state who are referred by their own physicians (the usual method of entry into any of the university's clinics or hospitals).

Patients are examined, observed, diagnosed and treated. The diagnosis, with recommended treatment, is sent to the patient's own doctor. The patient himself remains in the clinic only a relatively short time. Chief among the diagnostic aids for epilepsy is the electroencephalograph, an instrument which records electrical waves from the brain. The chief drugs used in the treatment of epilepsy are phenobarbital, dilantin, tridione and mesantoin. Some epilepsy is hereditary, some is due to brain damage, and some is a combination of the two. Statistically, Dr. Gibbs said, an epileptic has only one chance in 50 of having an epileptic child.

Personals.—Dr. Katharine Wright has been appointed a member of the staff of the mental hygiene clinic of the Veterans Administration Facility.—Dr. Louise Tavis passed her examination for the American Board of Dermatology in December.—Dr. Frances Hannet has resigned as special editor for psychiatry for the Journal of the American Women's Medical Association. She has been succeeded by Dr. Joan Fleming; both are of Chicago.—Dr. Trinidad Afable, a member of the staff of Women and Children's Hospital, was recently admitted to the American College of Surgeons.—Dr. Miklos J. Szilagyi, released from military service, recently opened offices at 738 West Seventy-Ninth Street.

Special Lectures.—Dr. Charles H. Watkins, Rochester, Minn., will deliver the sixth Edwin R. Kretschmer Memorial Lecture of the Institute of Medicine of Chicago, April 25, on "An Evaluation of Recent Drugs in the Control of Experimental and Human Leukemia." The third William Hamlin Wilder Memorial Lecture of the institute will be presented, May 23, by Dr. J. Q. Griffith, Jr., Laboratory for the Study of Hypertension, Philadelphia, on "Rutin: A Therapy for the Hemorrhagic Complications of Hypertension." Both lectures will be delivered at the Palmer House.

HENDERSON COUNTY

Personal.—Dr. Harold L. Bock, Peoria, has located in Stronghurst.

KANKAKEE COUNTY

Personal.—Dr. Ralph T. Hinton, Payson, the first superintendent of the Manteno State Hospital, was honored recently when the hospital recreation hall was renamed Hinton Hall in his honor.—Dr. Herbert McMahon was recently elected president of the Illinois Physicians' Association.

LA SALLE COUNTY

Personal.—Dr. H. Vernon Madsen, Waterloo, Iowa, has been named medical director and executive of the La Salle County Tuberculosis Sanatorium, Ottawa, succeeding Dr. Loren L. Collins, who accepted a similar position at the Adams County Tuberculosis Sanatorium, Edwardsville.

MACON COUNTY

Society News.—"The Cancer Problem from the Illinois Division Standpoint" was the title of an address by Dr. John A. Rogers, Chicago, before the Macon County Medical Society, February 25, in Decatur. Dr. Rogers is the executive director of the Illinois Division of the American Cancer Society.

McHENRY COUNTY

Personal.—Dr. Frank L. Brundza, recently released from service in the Navy, has opened offices in McHenry.

McLEAN COUNTY

Society News.—Dr. Arkell M. Vaughn, associate clinical professor of surgery, Loyola University School of Medicine, Chicago, gave an illustrated lecture on "Gastric Surgery" before the McLean County Medical Society in Bloomington, February 11.

PIATT COUNTY

New Officers.—Dr. Albert O. Trimmer, Cerro Gordo, was recently elected president of the Piatt County Medical Society, succeeding Dr. Abe D. Furry, Monticello. Dr. William W. Scott, Bement, was chosen secretary to succeed Dr. William Sievers, White Heath, who had held the position since the death of Dr. Charles M. Bumstead.

Personal.—Dr. and Mrs. Albert T. Hume, Monticello, have gone to Temple, Texas, where Dr. Hume will be a member of the staff of a veterans hospital there.

ROCK ISLAND COUNTY

Society News.—Dr. Carlo Scuderi, associate professor of orthopedics, University of Illinois College of Medicine, Chicago, discussed "Massive Bone Grafts" before the Rock Island County Medical Society recently.

RANDOLPH COUNTY

New Officers.—Dr. Abbott C. Scott, Evansville, was elected president of the Randolph County Medical Society at its meeting, January 30. Other officers include Drs. Louis Mattingly, Red Bud, vice president, and Willard W. Fullerton, secretary-treasurer. Dr. Fullerton was also elected delegate to the Illinois State Medical Society, and Dr. Omar Hoffman, Chester, alternate.

SANGAMON COUNTY

Society News.—Dr. John M. Dorsey, Chicago, addressed the Sangamon County Medical Society, February 6, on "Surgical Treatment of Lesions of the Lower Esophagus and Cardia of the Stomach." The society on April 3 heard Dr. Chester C. Doherty, associate in the department of obstetrics

and gynecology, Northwestern University Medical School, Chicago, discuss "Clinical Aspects of Ectopic Pregnancy." The program committee of the society recently inaugurated a new policy for meetings. In the future, sessions will be held at the Abraham Lincoln Hotel, Springfield, to permit a dinner and social period in connection with the meetings.

VERMILION COUNTY

Society News.—Dr. Harry Mock, Jr., Chicago, discussed "Refrigeration" before the Vermilion County Medical Society in Danville, March 4. Dr. Kenneth H. Hammond, Hoopeston, is president of the society and Dr. Holland Williamson, secretary-treasurer.

STEPHENSON COUNTY

New Officers.—Dr. William Edward Rideout, Freeport, was recently chosen president of the Stephenson County Medical Society; Dr. Francis X. Graff, Freeport, vice president, and Dr. Lester P. Bunchman, Orangeville, secretary-treasurer.

WAYNE COUNTY

Society Chooses New Officers.—Dr. Leslie W. Young, Fairfield, was recently elected president of the Wayne County Medical Society, succeeding Dr. Gilbert T. Ransom, Fairfield. Dr. William E. Phillips, Cisne, was named vice president, and Dr. Kenneth O. Hubble, Fairfield, was reelected secretary-treasurer.

WINNEBAGO COUNTY

Membership Reaches New High.—With 174 members, the Winnebago County Medical Society recently announced that it had established a new high in total membership. New officers of the society include Drs. Charles Leonard, president; Alexander Braze, vice president, and William Palmer, secretary-treasurer. All are of Rockford.

WOODFORD COUNTY

Personal.—Dr. Melvin Glick, Roanoke, has taken over the practice of the late Dr. Alvah E. Reynolds, El Paso, newspapers report.

GENERAL

Society News.—Dr. Andrew C. Ivy, Chicago, vice president, Chicago Professional Colleges, University of Illinois, discussed "Appetites" at a meeting at the Standard Club, March 20, under the auspices of the Illinois Society for Mental Hygiene.

"1 in 8" Theme for Cancer Campaign.—"Unless we act, one in eight will die of cancer" is the theme of the 1947 campaign against cancer. With April designated as cancer control month, the annual appeal for funds will be carried out throughout the state under the auspices of the Illinois Division of the American Cancer Society. Illinois' goal is \$906,000 as its share in the national objective of \$12,000,000. Of the funds raised in Illinois, 60 per cent will remain in the state. The 40 per cent going to national headquarters will be spent largely for research and education, much of it returning to Illinois in the form of grants-in-aid to Illinois research workers.

Resolutions Seeks Aid for Mental Units.—A resolution asking for more doctors and nurses, more money, more beds and higher employees' wages for state mental hospitals in Illinois was approved by the Council of the Illinois State Medical Society in a meeting at the Palmer House, March 10. At the invitation of Dr. Walter Stevenson, Quincy, chairman of the Council, Drs. Harry R. Hoffman, state alienist, and Dr. George A. Wiltrakis, deputy director of medical and surgical service, state public welfare department, appeared before the Council to discuss the difficulties of state hospitals because of insufficient personnel and space. On motion of Dr. Robert S. Berghoff, Chicago, President of the Illinois State Medical Society, the Council voted to recommend appropriation of funds by the state legislature to:

1. Substantially increase the number of doctors, nurses, attendants and other personnel in the hospitals.
2. Raise wages to the level prevailing in Veterans Administration hospitals and in other states.
3. Rehabilitate existing facilities and provide space for 14,000 more beds.

Surgeons to Approve Cancer Detection Centers.—At the request of the American Cancer Society, the American College of Surgeons is inaugurating a program for the survey and approval of cancer detection centers. The work will be under the direction of Dr. Bowman C. Crowell, associate director of the college and a member of the executive committee of the Illinois Division of the American Cancer Society. The detection center differs from what is called a diagnostic cancer clinic in that the former is organized to examine apparently well people who have no symptoms of cancer, whereas the latter is for the patient who has a lump, abnormal bleeding, a sore that will not heal or some other suspicious symptom.

Homes for Children.—The United Home Finding Service, 1951 West Madison Street, Chicago 12, a member of the Council of Social Agencies of Chicago, is interested in locating homes for children. The service points out that the children to be placed are not for adoption, the final responsibility for the child's welfare remaining with the agency. Most of the children have one or both parents or near relatives and may return to them at some later date.

New Officers of Southern Illinois Society.—Dr. Willis I. Lewis, Herrin, was chosen president of the Southern Illinois Medical Association at its meeting recently in Anna. Other officers include Drs. John B. Moore, Benton, and Robert V. Ferrell, Eldorado, vice presidents, and Gilbert H. Edwards, Pinckneyville. Dr. Robert S. Berghoff, Chicago, president, Illinois State Medical Society, addressed an afternoon session on "The Coronary Outlook" and the principal address in the evening on "Present Status of the Medical Profession." Other Illinois speakers included Drs. Daniel T. Cole and W. A. Baker, both members of the staff of the Anna State Hospital.

Lake County Again Leads in Seal Sale.—Preliminary reports on the sale of Christmas seals for the care of tuberculosis indicate that Lake County, winner of last year's gross Seal Sale cup, was leading again this year. Up to January 15 this county had reported a total of \$32,162.17. Kane and Winnebago counties were having a close race for second place with Kane reporting \$30,000 and Winnebago, \$30,025.32. Winnebago placed second last year. W. P. Shahan, executive secretary of the Illinois Tuberculosis Association, reported that the sale in all counties was in excess of last year's totals.

Committee Named to Improve Mental Care.—A citizens committee has been named to spearhead a statewide campaign to improve conditions in mental hospitals of the state. Under the auspices of the Illinois Society for Mental Hygiene, the campaign will attempt to carry on legislative and educational activity to provide adequate accommodations and improved living conditions for patients in mental hospitals, newspapers reported. Information may be obtained from the Illinois Society for Mental Hygiene, 343 South Dearborn Street, Chicago 4.

Institute for Rheumatic Fever.—Gifts amounting to \$60,000 have been received by Northwestern University Medical School, Chicago, for the establishment of an Institute for the Study of Rheumatic Fever, the first such institute in any school of medicine in the nation.

The grants, comprising \$45,000 from the United States Public Health Service, and \$15,000 from the American Cyanamid Company, Lederle Laboratories division, were announced March 7 by Dr. J. Roscoe Miller, dean of the medical school. They represent initial funds for the project, which will require the full-time services of at least nine top experts, including Dr. Alvin F. Coburn, who will be director of the institute.

"The economic importance of rheumatic fever as a world problem is appreciated more by physicians than by the general public," Dr. Coburn said. "In all countries of both north and south temperate zones, rheumatic heart disease ranks high as a cause of death. Furthermore, since most rheumatic patients have repeated attacks, long and expensive periods of hospitalization are to be expected. With rare exceptions, this is a disease of the underprivileged, who must rely on charitable hospitals for their care. In Chicago, rheumatic fever is probably the second most important disease among children and young adults.

"In this country alone," Dr. Coburn continued, "with about 1,000,000 rheumatic patients, hundreds of millions of dollars are spent each year on treatment, but less than a hundred thousand dollars on rheumatic fever research. The significance of this situation was highlighted by the recent war."

Dr. Coburn, who was in charge of epidemic disease control in the navy during the war, explained that the navy, even after careful screening

to eliminate rheumatic subjects, still found that training activities at several large stations were endangered by the prevalence of rheumatic fever.

According to navy statistics, he said, more than 20,000 men developed the disease while in training. Many millions of dollars were spent on their care and, as a result, the mortality rate was minimal. Nevertheless, there resulted several thousands of cases of heart disease among navy veterans.

American Heart Association officials describe rheumatic fever as both killer and a crippler, and state that it is more widespread than most parents realize. Including rheumatic heart disease, it ranks with tuberculosis and syphilis as a great, disabling, chronic disease. Except for accidents, it is the commonest cause of death by disease in the 20-24 age group. It causes much of the heart disease of later life and, in the United States, it affects more than a million persons, young and old.

Rheumatic fever begins between the ages of five and ten in the majority of cases, and usually is preceded, several days or weeks, by a hemolytic streptococcus infection. This is the "starting agent." The mechanism of rheumatic fever itself is not definitely known. One prevailing medical opinion subscribes to the idea that susceptibility to the disease may be inherited.

Hemolytic streptococcus is the same germ which is commonly the cause of other illnesses, such as tonsillitis, scarlet fever, erysipelas, inflammation of the ear, and the so-called "strep sore throat." Rheumatic fever attacks the connective tissues of the body and causes inflammation of the muscle, valves and outer lining of the heart.

The Rheumatic Fever Research Institute and its laboratories will be housed on one entire floor being set aside in the Municipal Contagious Disease hospital in Chicago. The ultimate objective of the proposed studies will be the development of methods for prevention and treatment. The immediate objective will be to gain new knowledge of the disease's mechanism.

It is planned to set up eight units in the institute, four in biology and an equal number in chemistry, with a distinguished, experienced investigator to head each unit. The biology units will include the fields of bacteriology, immunology, pathology and physiology; the chemistry divisions, biochemistry, immunochemistry, enzyme chemistry and, perhaps, organic chemistry.

In conjunction with the fundamental research work, the institute will have the services of additional investigators to engage in clinical research in collaboration with hospitals concerned with the care of rheumatic children. The staff's experts will be recruited from both the United States and abroad, and will devote full time to the work of the institute. It is expected that the laboratories

and other facilities will be completed and ready for operation by July.

Dr. Coburn, until his appointment as director of the institute, was assistant professor of medicine in the College of Physicians and Surgeons of Columbia University. He graduated at Johns Hopkins University School of Medicine, Baltimore, in 1925. His navy service extended over four years.

Dr. Coburn has been the recipient of many honors, including research fellowships and endowed lectureships. He was given the Wellcome Foundation medal, a distinguished British award in medicine, in 1944. He also is a member of several important organizations, including the American Association for the Advancement of Science, the American Society for Clinical Investigation, and the Association of American Physicians.

Postgraduate Conferences.—Under the auspices of the Post-Graduate Education Committee, of which Dr. Robert S. Berghoff, Chicago, is chairman, postgraduate conferences have been arranged April 3 in East St. Louis for the Tenth Councilor District and April 17 in Mattoon for the Eighth Councilor District. The Tenth Councilor District comprises the counties of St. Clair, Monroe, Washington, Randolph, Perry, Jackson, Union, Alexander and Pulaski, and the Eighth Councilor District the Counties of Champaign, Vermilion, Douglas, Edgar, Cumberland, Clark, Coles, Jasper, Crawford, Richland, Lawrence, Wabash and Edwards.

With Dr. G. Cleveland Otrich, Belleville, councilor, presiding, in East St. Louis the following program was presented:

12 noon (complimentary luncheon)

- 1:30 Willard O. Thompson, M.D., Chicago, "Some Common Endocrine Problems" at St. Mary's Hospital, East St. Louis, Illinois.
- 2:15 Byrne M. Daley, M.D., Wayne University College of Medicine, Detroit, Michigan, "Buffer Thrombin in Treatment of Gastric Hemorrhage" at St. Mary's Hospital.
- 3:00 John Reynolds, M.D., Assistant Professor of Surgery, University of Illinois College of Medicine, "Carcinoma of the Colon" at St. Mary's Hospital.
- 3:45 Irving H. Neece, M.D., Decatur, President-elect of the Illinois State Medical Society, "Hematuria," St. Mary's Hospital.
- 4:30 W. Barry Wood, Jr., M.D., Professor of Medicine, Washington University School of Medicine, St. Louis, "The Treatment of Acute Bacterial Infections" at St. Mary's Hospital.
- 5:30 Dinner and Cocktails at the Broadview Hotel.
- 7:30 Robert S. Berghoff, M.D., Chicago, President of the Illinois State Medical Society, "Some Remarks as President" and "Modern Concepts of Coronary Disease," at the Broadview Hotel, East St. Louis, Illinois.

A tumor clinic, sponsored by the Illinois division of the American Cancer Society, was conducted by Dr. Reynolds in the morning at Christian Welfare Hospital, on "Cancer of the Breast."

In Mattoon, where Dr. Harlan English, Danville, Councilor of the Eighth District, presided, the following program was presented:

12 noon Luncheon (complimentary)

- 1:30 George Hellmuth, M.D., Chicago, Prognosis of Heart Disease.
 2:15 James H. Hutton, M.D., Chicago, Common Endocrine Disturbances.
 3:00 Charles E. Galloway, M.D., Evanston, Early Diagnosis of Carcinoma of the Cervix.
 3:45 Harry A. Oberhelman, M.D., Chicago, The Relationship of Chronic Cystic Mastitis to Cancer of the Breast.
 4:30 G. Henry Mundt, M.D., Chicago, Diagnosis and Management of Sinus Disease.
 5:15 Round Table Discussion
 6:00 Dinner
 7:30 Harold M. Camp, M.D., Percy E. Hopkins, M.D., Chicago, and Edwin S. Hamilton, M.D., Kankakee, Voluntary Prepayment Medical Care Plans.

In addition to Dr. Berghoff, chairman, members of the Post-Graduate Education Committee include Drs. Frank Deneen, Bloomington, Charles O. Lane, West Frankfort, Warren H. Cole, Chicago, F. Garm Norbury, Jacksonville, and Charles P. Blair, Monmouth.

Lectures by the President.—Dr. Robert S. Berghoff, President of the Illinois State Medical Society, addressed the Fulton County Medical Society in Canton, March 13, on heart disease. He also presented a talk on activities of the state medical society. On April 21 Dr. Berghoff lectured before the Rotary Club of Springfield on "Recent Advances in the Treatment of Heart Disease."

HEALTH DEPARTMENT ACTIVITIES

Educational Secretary Visits Health Department.

—As the guest of Mrs. Margaret B. Cowdin, chief, Division of Public Health Education, Illinois State Department of Public Health, and executive secretary of the Illinois Statewide Public Health Committee, Miss Ann Fox, Secretary, Educational Committee of the Illinois State Medical Society visited the many divisions and offices of the state department of health in Springfield, March 11-12. At an informal meeting in the home of Mrs. Cowdin, the following were present: Miss Marguerite Fish, health educator, Division of Public Health Education, Miss Elta Mae Mast, school health adviser, Division of Public Health Education, and liaison officer between the department of health and the Office of the Superintendent of Public Instruction; Mr. Forrest Nelson, Librarian, Division of Public Health Education; Miss Lydia Reitz, R.N., educational director, Division of Public Health Nursing, all of the Illinois Department of Public Health; Mr. W. M. Runyon, Illinois State Representative, National Foundation of Infantile Paralysis; Mr. Ben Kiningham, director of health education, Illinois Tuberculosis Association; Miss Opal Carl, health education trainee, School of Public Health, University of Minnesota; Mrs. Dorothy Fildes, executive secretary, Sangamon County Chapter of the Illinois Division, American Cancer Society. The trip to the Capitol included a visit with Dr. Roland R. Cross, Director, Illinois Department of Public Health; Mr. Baxter K. Richardson, senior administrative officer; Dr. Leslie W. Knott, medical administrative assistant; Mr. Clarence W. Klassen,

chief engineer, Division of Sanitary Engineering, and Mrs. Elizabeth Ann Dunseth, Editor of *Illinois Health Messenger*, division of public health education, all of the state department of public health.

New Circular on Public Health.—A new educational health circular entitled "Public Health in Illinois" made was issued by the Illinois Department of Public Health, Springfield, in January. The brochure outlines the purpose and duties of the department, discusses the state of local health departments, locates state district health offices, county health departments and full time city and local district health departments. The booklet includes a discussion on the function of local health services, the break-down appearing under the headings control of communicable diseases, control of sanitation, maternal and infant health, preschool and school health and health education. Under a chapter entitled "Special Services Available in Local Areas", the discussion provides information on mobile x-ray units for tuberculosis case-finding, emergency maternity and infant care program, care for premature infants, cancer diagnostic clinics, blood plasma, treatment for newborn having ophthalmia, venereal disease treatment centers, laboratory service, distribution of drugs and biological products, and industrial hygiene services.

MARRIAGES

ROBERT M. HOYNE, Urbana, to Miss Avonne Andrews of Champaign, July 26, 1946.

FRANK J. MOSKAL, Chicago, to Dr. Margaret I. Stemple of Morgantown, W. Va., Nov. 28, 1946.

DEATHS

CHARLES NEWTON BROOKS, East St. Louis, who graduated at Jenner Medical College, Chicago, in 1910, and the Chicago College of Medicine and Surgery in 1912, died in the St. Clair County Hospital, Belleville, Nov. 27, 1946, aged 71.

CLAUDE MILTON COOK, Danville, who graduated at the National Medical University, Chicago, in 1909, died February 17, aged 62. Dr. Cook had been health director of Danville.

PETER CUTRERA, Chicago, who graduated at Regia Università degli Studi di Palermo, Facoltà di Medicina e Chirurgia, Italy, in 1894 and who was licensed in Illinois in 1897, died February 27, in Mother Cabrini Hospital. He had been a member of the staffs of Mother Cabrini and Columbus hospitals.

HARRY CHARLES DURKEE, Woodstock, who graduated at the University of Iowa in 1906, died February 16, in his home, aged 67. He had practiced in Huron and Faith, S. D., and Little Rock, Iowa, prior to the past three years in Woodstock.

CORNELIUS ALBERTUS HOSPERS, Chicago, who graduated at Rush Medical College in 1932, died February 20, at his home, aged 42. Dr. Hospers who had served in World War II, had been a member of the staff of Holy Cross and South Chicago hospitals.

LESLIE W. JONES, Chicago, who graduated at the Chicago Homeopathic Medical College in 1897, died in the Loretto Hospital No. 28, 1946, aged 74, of a skull fracture received when struck by an interurban bus.

DEBORAH VIVIAN RUBENSTEIN DAUBER, Chicago, who graduated at Boston University School of Medicine in 1928, died at Michael Reese Hospital, Nov. 21, 1946, aged 32, of injuries received when struck by an automobile. Dr. Dauber was a diplomate of the National Board of Medical Examiners.

SIMEON LAMBRIGHT, Danville, who graduated at the National Normal University College of Medicine, Lebanon, Ohio, in 1892, died in Mishawaka, Ind., Nov. 9, 1946, aged 83, of cardiovascular disease.

ALVAH EDGAR McRENOLDS, El Paso, who graduated at the University of Maryland School of Medicine, Baltimore, in 1915, died in El Paso, February 6, of coronary occlusion and cardiovascular disease, aged 70.

WILLIAM FLINT TIDWELL, Pittsburgh, who graduated at St. Louis College of Physicians and Surgeons in 1901, died January 24, aged 67.

WILLIAM CHARLES MEACHAM, Oak Park, who graduated at the University of Illinois College of Medicine in 1910, died February 11 at his home, aged 60. Dr. Meacham had been attending physician for the Chicago Black Hawks Hockey team and the Chicago Cardinals football team.

STAFFORD T. MITCHELL, Chicago, who graduated at Hering Medical College in 1895, died February 13, at his home, age 83.

MICHAEL C. MULLEN, Chicago, who graduated at the University of Illinois College of Medicine in 1894, died February 28, aged 76. Dr. Mullen had been associate professor of obstetrics and gynecology at Loyola University School of Medicine.

ARTHUR MARION SPARLING, Sailor Springs, who graduated at Washington University School of Medicine, St. Louis, in 1907, died February 7, aged 70.

CLIFFORD CHARLES WEHN, Rockford, who graduated at the Chicago College of Medicine and Surgery in 1914, died in St. Anthony's Hospital, Nov. 15, 1946, aged 58, of coronary sclerosis.

EMIL ARTHUR RACH, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1906, died in St. George Hospital, Dec. 7, 1946, aged 67, of coronary thrombosis. He was head of the obstetric department of St. Bernard's Hospital, once having been president of the staff there.

OLGA C. THOREN, Chicago, who graduated at Bennett College of Eclectic Medicine and Surgery, Chicago, in 1900, died February 15, aged 55.



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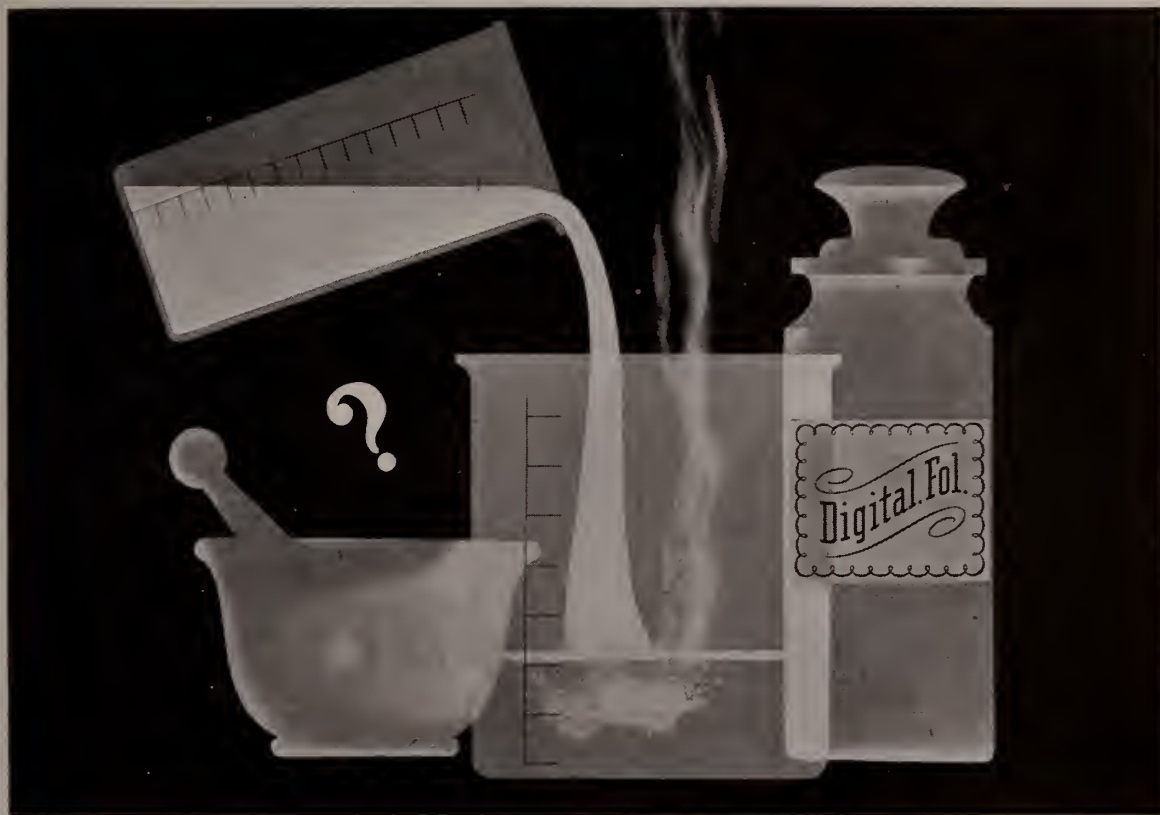
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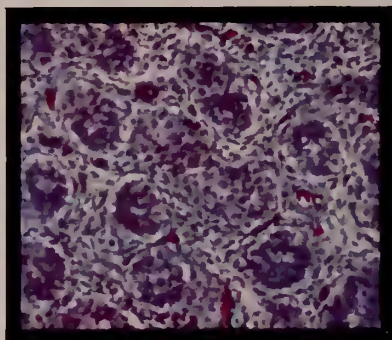
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Phatamicrograph of undescended human testicle. Transection of tubules. Masson III stain.

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1. Thampson, W. O.: J.A.M.A., 132: 185, 1946.

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MALPOSITION OF THE TESTICLE

← Right abdominal testicle. Three positions of the undescended testicle in the abdomen.

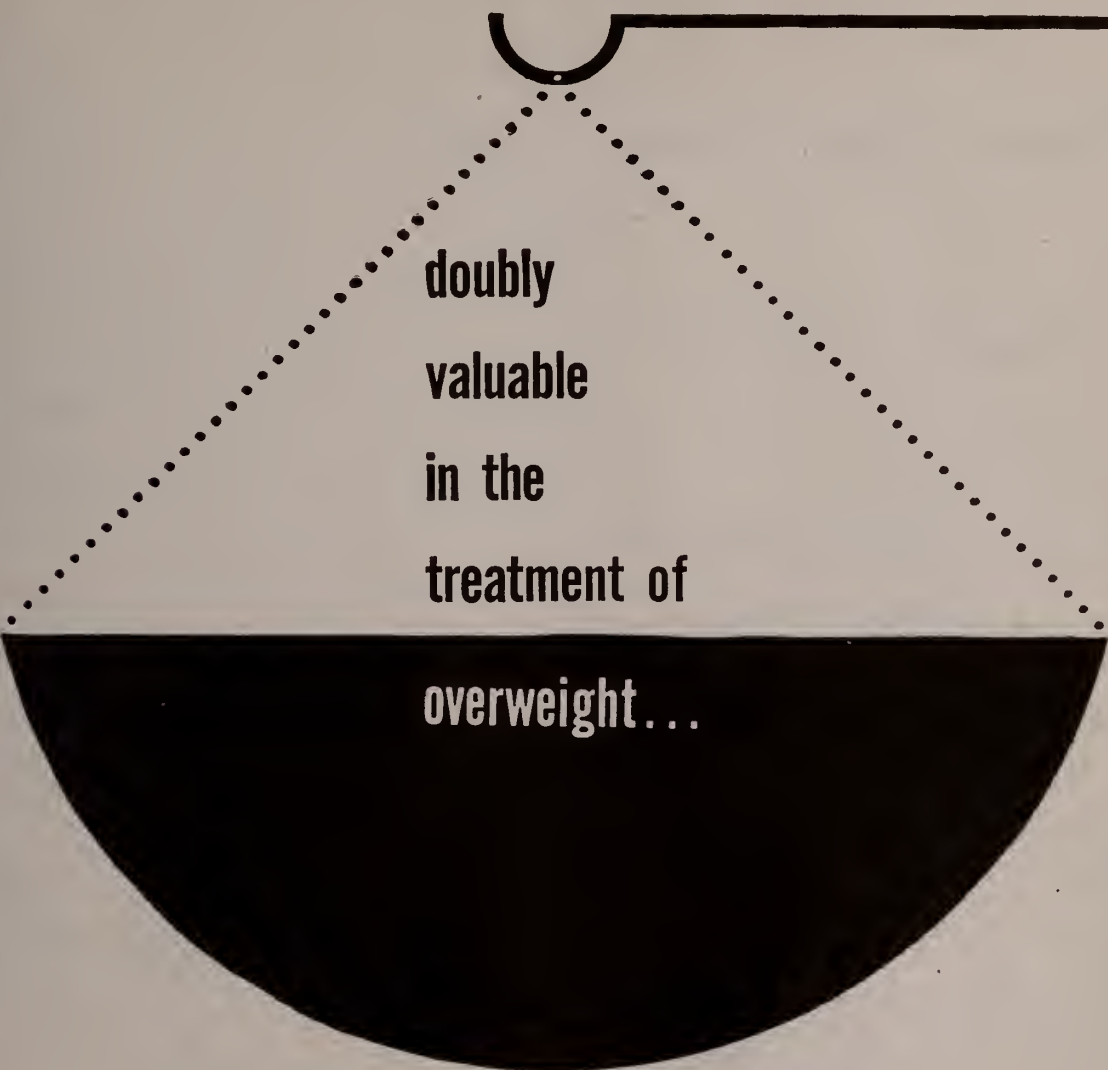
Right puba-scrotal testicle. Position of the undescended testicle in the puba-scrotal region. →



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*Canad. M. A. J. 54:26 (Jan.) 1946



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This list is corrected in accordance with the best information obtainable at the date of going to press. County Secretaries are requested to notify The Journal of any changes or errors.

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McLean	E. M. Stevenson, Bloomington	W. H. Atkinson, Bloomington.
Macon	S. G. Smith, Decatur	Maurice D. Murfin, Decatur.
Macoupin	George Hess, Bunker Hill	Joseph J. Grandone, Gillespie.

*Deceased.

(Continued on page 44)

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**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154; *Laryngoscope*, Jan. 1937, Vol. XLVII, No. 1, 58-60; *Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241; *N. Y. State Journ. Med.*, Vol. 35, 6-1-35, No. 11, 590-592.



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But there are other reasons, too, why you should consult your doctor as soon as you notice any signs of the menopause.

At this time, your body undergoes many changes. It's the time when you are most likely to have a rise in blood pressure or a tendency toward gastrointestinal disturbances.

Also, it's important to be sure that irregular menstrual periods actually indicate the onset of the menopause rather than pregnancy, or the presence of cancer or some other disease.

SEE YOUR DOCTOR. He can help you avoid many physical and mental problems during the menopause. Equally important, his supervision and understanding counsel at this time is your best security for continued good health in the years to come.

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Physical Medicine Abstracts

John S. Coulter, M.D.

THE PLACE OF PHYSICAL MEDICINE IN GENERAL PRACTICE

Walter J. Zeiter, M.D.

In OHIO STATE MEDICAL JOURNAL, 43:1:42
January 1947

External heat, applied generally and locally, is of value in treating a large variety of conditions. In rheumatic diseases the common triad of heat, massage, and exercise is of great benefit to the patient. The application of heat is more extensive and varied in this class of diseases than in any other. The thermal effect may be obtained by the use of hot water, whirlpool bath, infrared radiation, paraffin, or diathermy.

The whirlpool bath is a hydrokinetic measure in which water at a temperature between 110° and 115° F. is kept in constant agitation within a container in which an arm or a leg is immersed. In addition to marked dilatation of the peripheral blood vessel produced by heat, the whirling water also has an effect of gentle massage, which tends to relieve pain and relax muscles in the immersed extremity. The duration of the treatment is usually thirty minutes.

Hot paraffin is a clean and effective agent for raising the temperature of localized regions of the body, especially of the hands and feet.

Massage of an arthritic joint is usually directed to the muscles above and below the joint. In acute involvement, direct massage produce trauma and increase symptoms.

Exercise has been estimated to increase the flow of blood through muscles during activity twenty or more times as great as the flow during rest.

Treatment of cervical periathritis is directed to relaxation of the neck muscles, allaying in-

flammation and restoring a normal range of motion. This result can usually be obtained by use of local heat to cervical spine by means of infra-red radiation or short wave diathermy, massage, stretching, and progressive exercises.

Periathritis of the shoulder frequently can be relieved and a normal range of motion restored by the use of physical agents.

Diathermy is an aid in the relief of pain, tenderness, and muscle spasm and in the promotion of the absorption of the calcareous deposits in bursitis. In many cases it eliminates the former routine of operating and irrigating the bursa. During the acute inflammatory stage, diathermy should be used at low intensity.

Osteoarthritis of the knees frequently causes disability, particularly in obese patients. Application of diathermy or infra-red radiation followed by massage, exercises, added rest, and the support of an elastic bandage to the involved joint is effective in rehabilitating many of these patients.

Fibrositis involving the lower area of the back is frequently encountered. Before the massage is given, it is well to apply local heat such as diathermy or infra-red radiation. The condition may become aggravated at the beginning of treatment. However, if treatment is continued over a sufficiently long period, pain, tenderness, and muscle spasm are usually relieved with disappearance of the nodules.

Physical therapy has a definite place in hemiplegia in effecting rehabilitation and re-education of the involved extremities, in hastening convalescence, and in establishing mental ease.

(Continued on page 50)



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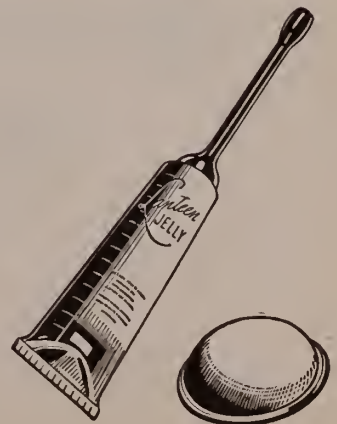
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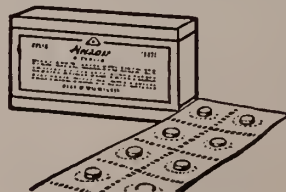
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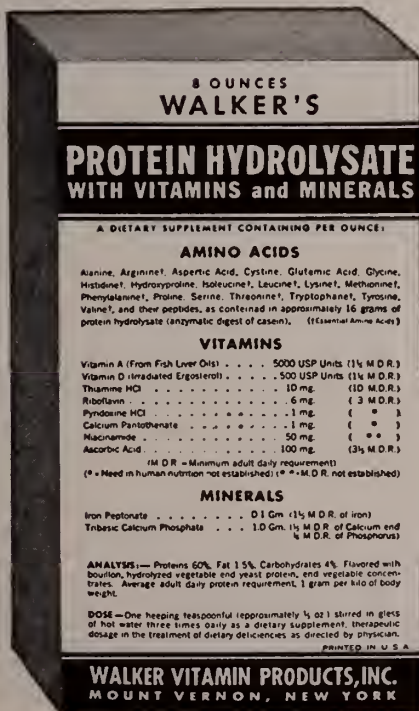
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PHYSICAL MEDICINE (Continued)

Homans has found physical therapy of value in the treatment of peripheral vascular disease. In addition to routine treatment, postural exercises are especially useful when discoloration of the toes and signs of edema indicate that the compensatory circulation is insufficient. In the absence of ulceration and gangrene Buerger-Allen exercises to increase peripheral circulation are superior to any other measure which does not involve the use of complicated apparatus.

In Bell's palsy, heat from an infra-red generator or diathermy and massage are used to maintain muscle tone until the inflammation subsides and function returns to the muscles. The application of heat is usually fifteen to thirty minutes, depending upon acuteness of symptoms. Exercises should be started as soon as acute pain disappears. The patient should be instructed in following a definite routine, such as wrinkling the forehead, opening and closing the eyes, wrinkling the nose, blowing out the cheeks, and attempted whistling.

Physical rehabilitation and reconditioning have

become an integral part of the medical programs of practically all Army and Navy hospitals. According to a recent report, "Physical therapy, occupational therapy, physical training, and educational and recreational programs are being beautifully coordinated in a manner which is completely revolutionizing the convalescent routines for the sick and disabled. There is no doubt that the developments in the physical rehabilitation and reconditioning of wounded soldiers and sailors will tend to revolutionize physical medicine as practiced in civilian hospitals. In the future, physicians will have to give more attention to each scientific detail of a suitable convalescent regimen which will fill the gap between the usual end point of medical care and the real necessities of most patients."

THE USE OF REASSURANCE

T. G. Armstrong, M.D. Camb., M.R.C.P.

In THE LANCET, No. 6423:480

October 5, 1946

It is to be regretted that during the last fifty years of scientific progress the management and

(Continued on page 52)

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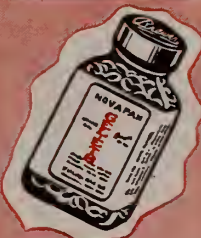
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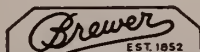
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PHYSICAL MEDICINE (Continued)

handling of patients has been neglected in the medical curriculum. The personal, and often intimate, methods of the older physicians are being replaced by highly specialized or materialistic impersonal methods.

The management of patients, though not an exact science, is, or should be, part of a discipline comprising method and technique. It can be studied and improved in the same way as other scientific disciplines. Training in this subject is necessarily more difficult than the simple acquisition of facts. Much depends on the establishment of sympathetic contact with patients, and perhaps yet more on experience. Our only training has been in the hard school of experience over many years. Much time could have been saved and long periods of sickness avoided if the principles of personal therapeutics had been taught in our medical schools.

Summary

Reassurance, or the allaying of the patient's anxiety, is of great value not only in neurosis but also in organic disease by removing ill-founded fears.

For reassurance to take effect, the patient must have complete confidence in the doctor, and the doctor complete confidence in his diagnosis. This is best done, in psychogenic cases, by explaining to the patient the mechanism involved.

Adjuvant therapy must be short, to avoid suggesting to the patient that he has a serious disease; and it must be aimed at re-education of the patient.

AMPUTATIONS OF THE LOWER EXTREMITIES BY MEANS OF REFRIGERATION ANESTHESIA

Max B. Nathanson, M.D. and Joseph M. Armengol,
M.D., New York, N. Y.

In *THE MEDICAL WORLD*, p. 69
February, 1946

It must be emphasized that refrigeration of a limb at 40 degrees centigrade for four hours will not cause damage to tissues or frost bite unless the patient has been carelessly prepared. It might be of interest to mention the experiments of Blakemore, Lord and Stefkó in which they cut off legs of dogs completely, refrigerated them

(Continued on page 54)



A BRIGHT SPOT

in the Peptic Ulcer Dietary

A wheat cereal delightfully flavored with bits of toasted malt, Malt-o-Meal adds a new, tasty, appealing food to the ulcer regimen. Thoroughly bland and devoid of bran, Malt-o-Meal cooks to creamy consistency and ready digestibility in but three minutes. Served with milk or cream, it serves well in the dietary management of gastric or duodenal ulcer,



aiding in acid neutralization and in reducing acid secretion. An added advantage is the fortification of Malt-o-Meal with significant amounts of thiamine, riboflavin, niacin and iron. In acute ulcer flareup, Malt-o-Meal may well be served several times daily without fear of cloying the appetite; in the dietary prevention of recurrences, Malt-o-Meal meets every requirement for a chemically bland, easily digested, nutritionally desirable and highly palatable food.

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Malt-o-Meal, an enriched wheat cereal flavored with toasted malt, provides per ounce (dry weight), 0.29 mg. of thiamine, 0.13 mg. of riboflavin, 1.09 mg. of niacin, and 2.00 mg. of iron. Thus Malt-o-Meal provides appreciably more thiamine, riboflavin, and iron than does whole wheat, and 78% of the niacin content of whole wheat.

for twenty-four hours and then restore them to their former position and function.

The tourniquet which is applied about nine inches above the site of amputation plays an important role as an aid to refrigeration anesthesia. It aids in the anesthesia and in the more rapid reduction of the temperature. It also prevents toxic material from entering the circulation and aids in haemostasis so that during an amputation almost no blood is lost.

SUMMARY

Three cases are presented to illustrate the comparative safety of amputation under refrigeration anesthesia. The ease and comfort of the patient are attributed to the lack of pain and absence of shock. The diminished mortality and the remarkable post operative behavior are attributed to refrigeration anesthesia.

The most essential service rendered by tuberculosis hospitals to their respective communities is not primarily the hospitalization of patients, but rather the effective control of this disease. C. J. Stringer, M.D., Hospitals, August, 1946.

FURTHER STUDIES ON ULTRAVIOLET RADIATION IN SURGERY

Roy Fraser, M.A., F.R.M.S., Professor of Bacteriology, Mt. Allison University, Sackville, N. B.
In CANADIAN MEDICAL ASSOCIATION JOURNAL, 55:5:457

November, 1946

The extensive and increasing adoption of such protective equipment seems to be due to the recognition by hospital authorities of four facts:

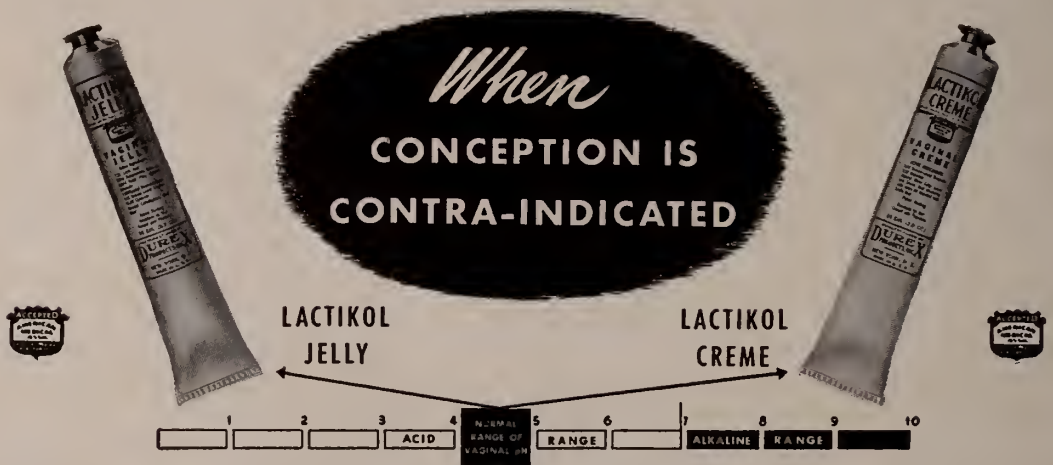
1. The development of aerobiological studies and the consequent understanding of the importance of air-borne micro-organisms in medicine, surgery, and public health.

2. The efficiency of ultraviolet germicidal radiation as demonstrated both experimentally and in widespread practical use.

3. The safety of such radiation when tested by experimental methods and clinical experience, provided the proper precautions are observed at all times.

4. The acceptance of the Council on Physical Medicine of the American Medical Association of standard ultraviolet equipment for the uses stated

(Continued on page 58)



pH VALUE. The normal vaginal pH lies between 4.0 and 5.0. Bath Lactikal Jelly (pH 4.15) and Lactikal Creme (pH 4.9) are within this normal range and so tend to maintain the proper pH value of the vaginal tissues.

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FINKLER, R. S., BECKER, S.: J.A.M.W.A. 1:152, 1946.

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BARNES, J.: BRIT. M. J. 1:601, 1942.

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PHYSICAL MEDICINE (Continued)
in such approval, and under the standards and limitations given therein.

SUMMARY

Use of ultraviolet germicidal equipment in hospitals and other institutions is widely increasing.

2. The results of further experimental operations to test the safety of field irradiation are reported in condensed form.

Safety measures for the protection of the patient and operating staff are described and stressed.

PERIPHERAL NERVE INJURIES RECENT PROGRESS IN TREATMENT

T. B. Mouat, M.D., Ch.M., F.R.C.S.
In BRITISH MEDICAL JOURNAL, No. 4486
December 28, 1946

Throughout all stages of the treatment of peripheral nerve injuries it is of great importance to remember that denervation is associated with trophic changes which affect all the struc-

tures of the limb, including the joints; and though splinting is necessary in their treatment and after-treatment to relax the paralysed muscles and to safeguard the nerve repair, the splints must be removed frequently to permit guarded exercises to preserve joint mobility and electrical stimulation of the paralysed muscles, as the one and only criterion of success is restoration of function, which is so quickly lost and so difficult to regain.

The reasons are given why delayed secondary suture of peripheral nerve lesions is likely to prove unsuccessful.

The preliminary results of surgical treatment during the second world war; which are now becoming available, furnish strong evidence in favour of early secondary as opposed to primary nerve suture.

Recent work on nerve grafts is considered.

Health, like freedom and wealth, cannot be given, but must be earned. Edward J. Stieglitz, M.D., A Future for Preventive Medicine, The Commonwealth Fund, 1945.

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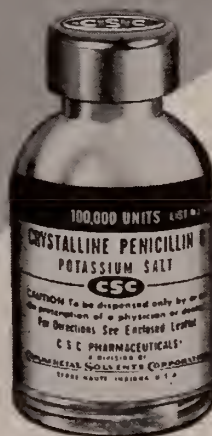
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Book Reviews

TEXTBOOK OF GYNECOLOGY: Arthur Hale Curtis, M.D., 5th Edition with 455 Illustrations, W. B. Saunders Co. 1946

Because of his vast experience in clinic and private practice and his many contributions to the scientific literature, Dr. Curtis must be classified as an expert in the field of gynecology.

The present text is the fifth edition and like its predecessors takes its place among preeminent works on this subject.

The anatomy of the pelvis and perineum is again ably presented in illustration and legend by the team of Curtis, Anson and Jones.

The outline of chapters is good with the following exceptions: Section 9 "Disturbances of Function"

could more aptly immediately follow Sections 2 and 3, "Physiology" and "The Endocrines". Again, Chapter 51 "Congenital Malformations" should immediately follow Chapter 1 "Anatomy". Lastly Chapter 34 "Ectopic Pregnancy" might well have been included in Chapter 52, "The Early Months of Pregnancy."

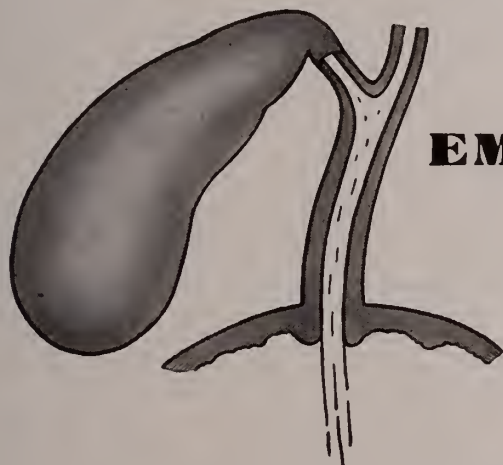
The "Physiology of the Pituitary Gland" is up to date and admirably presented.

On page 106 the author expresses the opinion that estrogenic hormone stimulates contraction of uterine muscle. This is debatable. Preparations of estrogenic hormones commercially available are sensibly discussed on page 133. The entire chapter on clinical endocrinology demonstrates a commendable conservatism in the use of various endocrine preparations. The menopause syndrome and its therapy is concisely presented.

The management of gonorrheal pelvic inflammatory disease is certainly comprehensive, but the reader is left in doubt as to the proper surgical management of affected ovaries in premenopausal patients.

According to the author, the use of a pessary as a therapeutic test in the management of uterine displacements, is usually unnecessary. This is surely not in keeping with the experience of many other competent gynecologists.

In the section on "Tumors of Uterus" testosterone and calcium are mentioned as therapeutic aids in the treatment of bleeding from the fibroid uterus. Anemia,



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BOOK REVIEWS (Continued)

regardless of type, is treated by administration of liver. Blood transfusion, it seems, is reserved for collapse only.

The potential carcinogenic effect of estrogenic substances is duly emphasized. The definite familial and hereditary incidence of carcinoma has been demonstrated in animals however such demonstration in man awaits further study.

In the now old problem of total versus subtotal hysterectomy as a routine procedure the author sits on the fence.

Although no marked advance has been made in the early diagnosis of uterine cancer the author rightfully stresses "earlier search" with the armamentarium presently available, especially the eye and the finger. The smear technique as devised by Papanicolaou and Traut is promising but not yet time-proven.

The author repeatedly mentions cervical canal obstruction as an etiological factor in cancer but nowhere does he elaborate as to the pathogenesis so the reader must relegate it to the time-worn "chronic cervicitis" still unproven as a factor.

In the treatment of uterine cancer the author states. ("It is. It is not.") that he frequently relies solely on clinical judgment in the diagnosis, even instituting radi-

ation therapy prior to microscopic confirmation. Such a policy is drastic, unscientific and ill-advised.

The chapter on ovarian tumors, replete with numerous specific case studies from the author's practice, is without doubt one of the most exhaustive and authoritative in print.

Retrodisplacement of the uterus as a factor in habitual abortion seems unduly stressed.

The chapter on the treatment of functional bleeding is practical, but nothing new is added to the present day management of this most difficult problem.

On page 527, Dr. Curtis rightfully condemns the practice of routine curettage following spontaneous abortion.

In the section on Sterility the author has thoughtfully included instructions in methods for the study of spermatozoa.

The etiology and diagnosis of endometriosis is handled thoroughly but therapy remains vague.

Even in the presence of a normal contra-lateral urinary tract, the practice of mere ligation of a sectioned or traumatized ureter as advocated by the author, would be disputed by most urological surgeons.

The management of the troublesome pruritus vulvae is a topic deserving of more space. In chapter 44 the author approves of pudendal block, alcohol injections and estrogenic therapy in the treatment of leucoplakic

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vulvitis but Chapter 45 resection is the only approved treatment.

On page 678 the author's statement that five milligrams of progesterone is the average daily replacement or substitutive dose for the corpus luteum of pregnancy is certainly not in keeping with experimental evidence that the non-pregnant corpus luteum elaborates approximately twenty-five milligrams daily.

Dr. Curtis, on page 693 states that large doses of radium for short periods of time is preferable to smaller doses for longer intervals, but fails to explain why.

On page 705 appears the statement that the administration of liver to a patient for a few weeks prior to Caesarian Section will simplify resuscitation of the infant. This remark is interesting but would bear further elucidation.

The subject index is complete.

J. P. F.

SHOCK TREATMENT AND OTHER SOMATIC PROCEDURES IN PSYCHIATRY: By Lothar B. Kalinowsky, M.D., Research Associate in Psychiatry, College of Physicians and Surgeons Columbia University, and New York State Psychiatric Institute and Hospital; Assistant Neurologist, Neurological Institute of New York; and Paul H. Hoch, M.D., Assistant Clinical Psychiatrist, New York State Psychiatric Institute and Hospital; Instructor in Psychiatry, College of

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BOOK REVIEWS (Continued)

Physicians and Surgeons, Columbia University. Foreword by Nolan D. C. Lewis, Director of the New York State Psychiatric Institute and Hospital. Grune & Stratton, New York, 1946. Price \$4.50.

Shock treatments have been used in psychiatry for the past ten years and the authors endeavor in this book to give the proper evaluation to this procedure and endeavor to give an unbiased appraisal of this therapeutic procedure. They likewise present in much detail the newer techniques used in administering these shock treatments.

The various drugs which have been commonly used in shock treatments are properly discussed, with their method of use, the expected reactions, and of course, the limitations for each of these preparations. A considerable amount of space is used for the presentation of insulin shock treatment and the resulting hypoglycemic comas, and this today is commonly limited to the treatment of schizophrenia.

The convulsive therapies are likewise well considered, beginning with the pharmacologic convulsive treatment, then a careful consideration of electric shock therapy with the selection of cases in which this therapy seems to be indicated, preparation, the technique, handling of the patient during and after the treatments, then a careful evaluation of this procedure and its indications.

The combined insulin-convulsive treatment is likewise described. Other somatic treatments are also given much consideration in the book, and their uses carefully evaluated. There are many physicians today interested in the subject of shock treatments, and this book will be of much value to those who desire authoritative information on the types of treatment being used, the techniques as well as indications and contraindications.

MONGOLISM AND CRETINISM. By Clemens E. Benda, M.D., Director, Wallace Research Laboratory of Mental Deficiency, Wrentham, Mass. Cloth. Price \$6.50. Pp. 310, with 103 illustrations. New York, N. Y.: Grune & Stratton, Inc., 1946.

Mongolism is far from rare in this country. According to the author of this book, the number of mongoloids in the United States is estimated at 60,000. Of approximately 8650 daily births, the author asserts that at least 17 are probably mongoloids. In view of the above statements, there is no question about the need of more information on the subject — a need that is well met by this volume and that makes this book a welcome addition to medical literature.

The author has studied more than 300 patients suffering from mongolism over a period of ten years and has performed 50 autopsies. His investigations in-

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clude the physical and mental characteristics of the patients and the radiological, hematologic, biochemical and pathologic changes. Of particular interest are the chapters on the nervous system, endocrine pathology and treatment of mongolism.

In addition to his work on mongolism, the author has studied patients with cretinism, the disease so often confused with mongolism. The result is a well-rounded investigation of both diseases, which should prove useful both to the clinician and the research worker.

The reviewer did not find any studies on cerebrospinal fluid of mongoloids in the book. Since there has been some controversy in medical literature as to the presence or absense of cerebrospinal changes in mongolism, a discussion of the subject would be enlightening.

The bibliography at the end of each chapter adds to the value of the book.

A. L.

Rehabilitation in tuberculosis should begin no later than the day the patient enters the sanatorium, because from the beginning he must know that there is still a future for him. This knowledge acquired early in illness makes a great difference in his morale and his manner of adjustment to a changed way of life. Herman E. Hilleboe, M.D., and Norvin C. Kiefer, M.D., Pub. Health Rep., Mar. 1, 1946.

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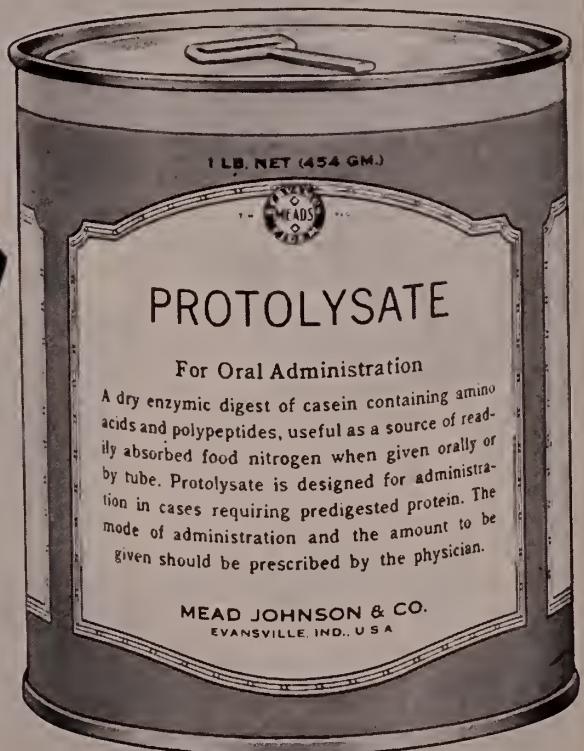
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May, 1947

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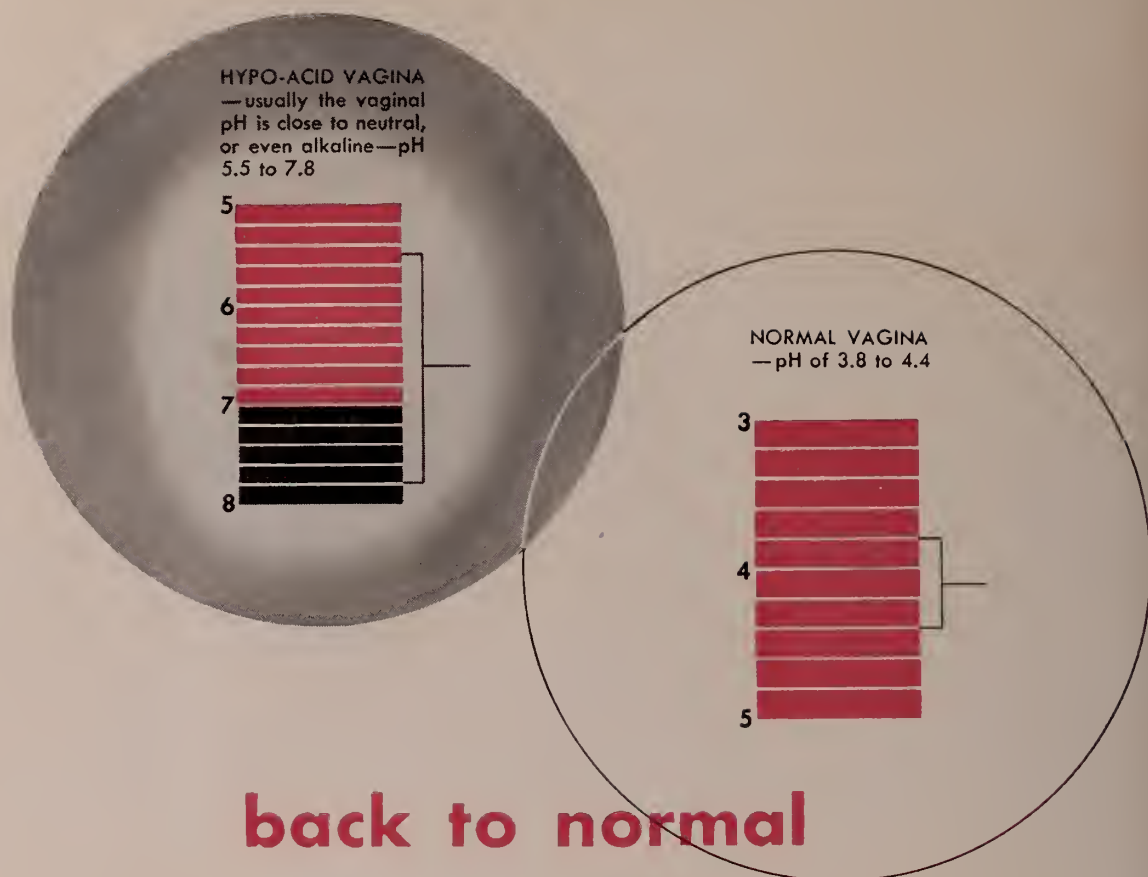
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1. Reznikoff and Goebel: J. Clin. Investigation 16:547, 1937.

2. Editorial: J.A.M.A. 127:1056, 1945.

3. Thomasset: Biochem. J. 34:959, 1940.

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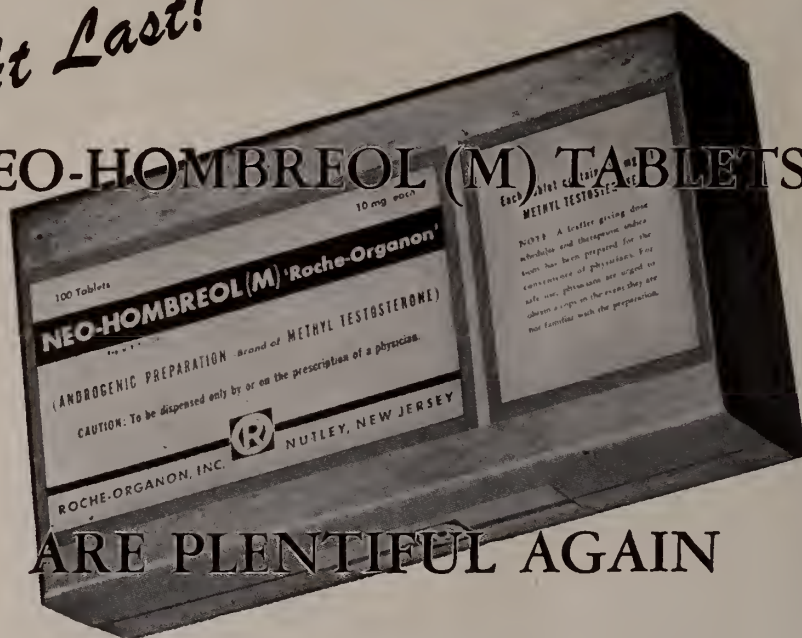
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Far too often in the past, the secondary anemia case improved to a point below normal, then stopped—or showed very slow progress. Today, thanks to the efforts of research workers at the University of Wisconsin, physicians are better prepared to treat such cases. The answer lies in the discovery by the University group that maximum hemoglobin regeneration requires the presence of copper to act as a catalyst for the iron. • Cofron Elixir is based upon this discovery. It is a palatable liquid containing one part copper to 25 parts iron, the ratio found most effective by the Wisconsin investigators. In addition, Cofron Elixir contains liver concentrate as a source of vitamin B complex factors. • Cofron Elixir is offered for the treatment of nutritional and other secondary anemias, and for general use as an iron tonic and hematinic in the treatment of anemias accompanying prolonged illness. It is especially suitable for children and others who prefer liquid to capsules. Cofron with Liver Concentrate in Capsules is designed for the treatment of more severe secondary anemia. • Cofron Elixir is available for your prescribing convenience in 12-fluidounce and 1-gallon bottles. Cofron with Liver Concentrate in Capsules is stocked at pharmacies in bottles of 100, 500 and 1000 capsules. ABBOTT LABORATORIES, North Chicago, Illinois.

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IN CAPSULES

stable tyrothricin

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ointment
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'TYRODERM' Tyrothricin Cream is particularly designed for treatment of a variety of skin infections. Developed by the Medical Research Division of Sharp & Dahme, it contains 0.5 mg. (500 micrograms) of stable tyrothricin per gram in a special emollient base. • The tyrothricin present in 'TYRODERM' Tyrothricin Cream is stable . . . exhibits approximately the same range of bacterial specificity as penicillin . . . remains in contact with site of application for a prolonged period of time . . . acts promptly. • 'TYRODERM' Tyrothricin Cream is indicated in the treatment of pyodermatases such as acne vulgaris, impetigo, dermatitis vegetans, infectious eczematoid dermatitis, and other dermatoses caused by gram-positive organisms. It is also useful in the treatment of varicose, decubital and ischemic ulcers, selected accessible postsurgical wounds, and minor second and third degree burns. Sharp & Dahme, Philadelphia 1, Pa.

'TYRODERM'

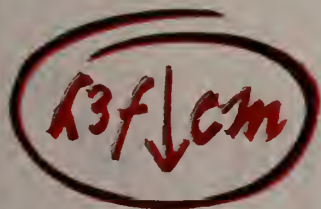
TYROTHRIN CREAM

Supplied in 1-oz. tubes and 1-lb. jars.

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Enlarged liver and dependent edema
too often usher in the cardiac patient who
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on the false hope that time alone would cure

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may be rewarded by early compensation and disappearance
of congestive signs.

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are available in bottles of 100 and 500.



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Nature is often capricious in making things quite alike, yet so different. *Veratrum Viride* grown in one geographic location does not have the identical pharmacological properties of the same plant from a different locality. It is known, in addition, that potency of *Veratrum Viride* collected from the same source varies markedly depending upon the season.

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***Each tablet contains 10 CRAW UNITS**

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A product of National Dairy research, FORMULAC Infant Food is fortified with all the vitamins known to be necessary for adequate infant nutrition. Incorporating the vitamins *into the milk itself* reduces the risk of human error or oversight in supplementary administration.

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Our booklet, "Instructions For Patients", will be found helpful in guiding patients in the proper use of the "diaphragm-jelly technique".

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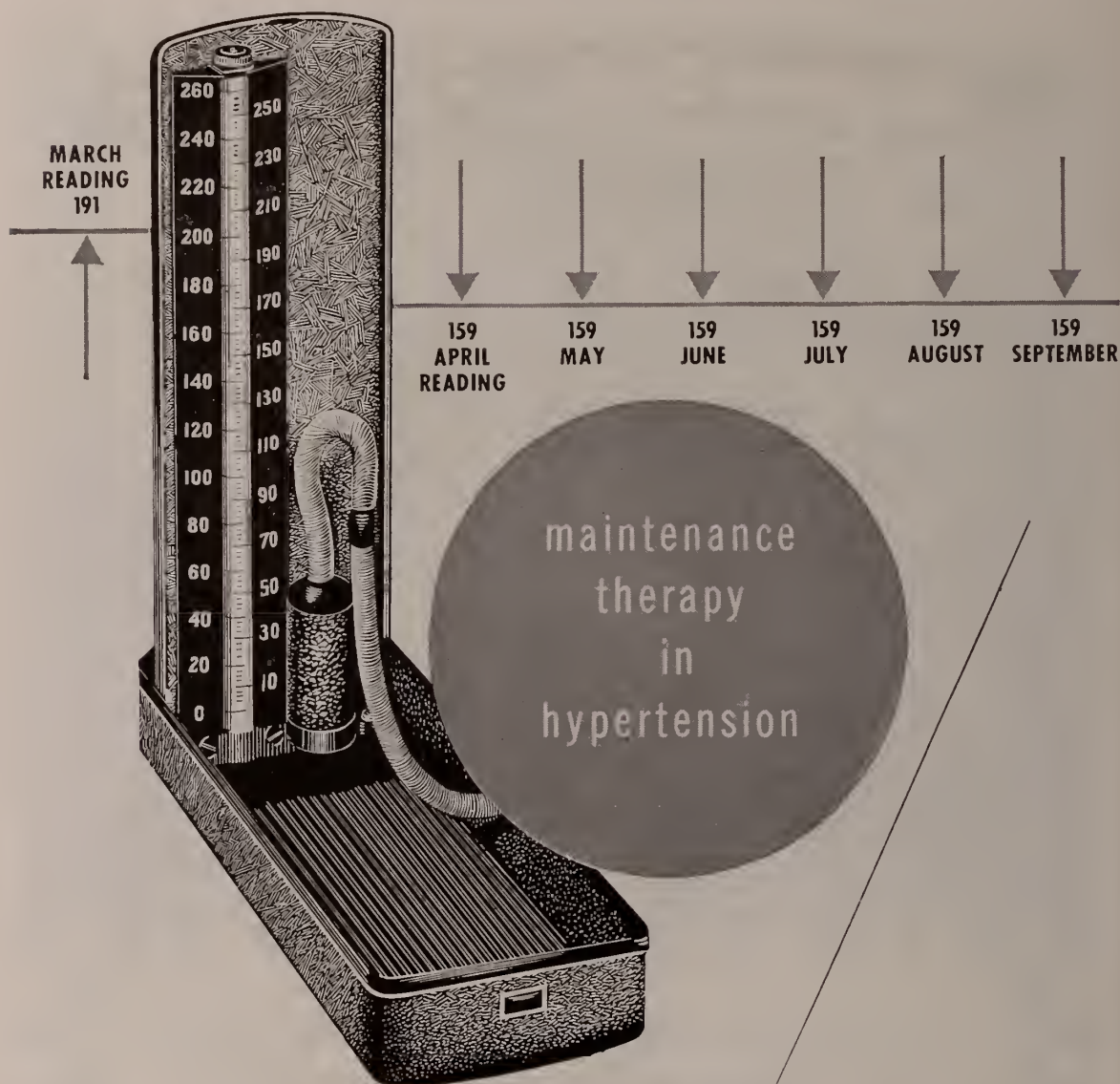


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For *arteriolar sedation*, Nitrobar contains bismuth subnitrate—slowly absorbed, releasing a gradual stream of nitrite ions over a period of hours.

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Each Tablet Nitrobar Comp. contains:
 Bismuth Subnitrate. 5 gr.
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 Butyl Barbituric Acid "McNeil") 1/2 gr.
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Nitrobar is *engastic coated* to insure gradual liberation of the nitrite ions in the intestine.

Bottles of 100, 500 and 1000 red tablets.

Literature and clinical samples available on request.

*Gruber, C. M., Ellis, F. W. and Freedman, G.:
 J. Pharmacol. and Exper. Therap. 81:254 (July) 1944.

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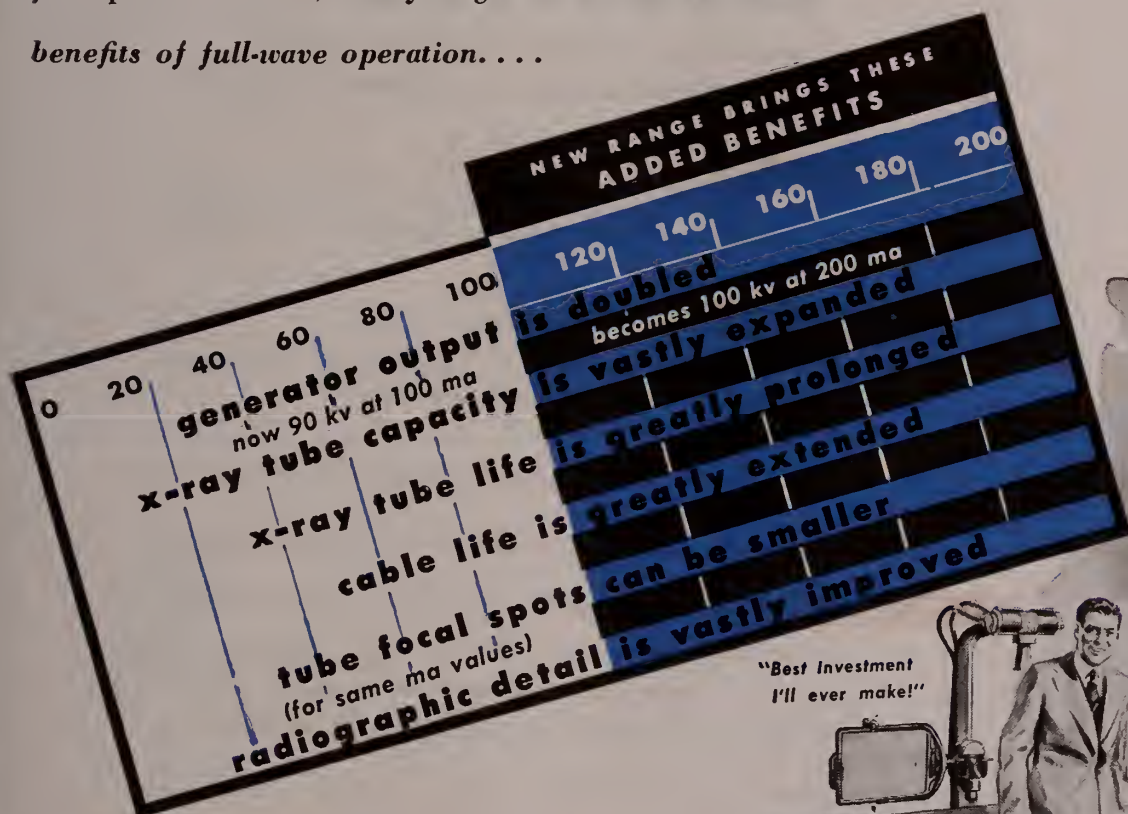
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EFFECTIVE

**in Coronary Artery Disease and
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DEFINITELY PROVEN Clinical experience and carefully controlled objective studies in humans have definitely proven the value of Theobromine Sodium Acetate in treating Angina Pectoris and Edema of Cardiovascular or Renal origin.

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HYPERTENSION—Similar.

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S u p p l i e d THESODATE supplied in bottles of 100;500:

$7\frac{1}{2}$ grain enteric-coated tablets with or without $\frac{1}{2}$ gr. phenobarbital.

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Capsules (not enteric-coated) available in same potencies for supplementary medication.

*Literature with confirming bibliography and
PHYSICIAN'S SAMPLES sent on request.

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STUBBORN CASES CALL FOR...

Phosphaljel

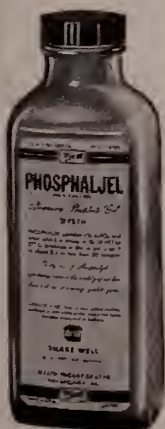
Phosphaljel is unexcelled in the treatment of marginal ulcer. It provides quick relief from pain . . . lays a protective coating over the inflamed mucosa . . . *safely* buffers gastric acidity with no danger of alkalosis or "acid rebound." Phosphaljel permits a liberal bland diet—patients are more contented during treatment, gain strength and weight more quickly.

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valuable in cases complicated by diarrhea, pancreatic insufficiency or phosphorus deficiency, and is well adapted for continuous buffering by intragastric drip.

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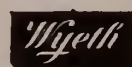
A new Wyeth motion picture, in full color, entitled "Intragastric Drip Therapy for Peptic Ulcer," illustrating the use and advantages of the intragastric drip apparatus, is now available to medical groups. Request a showing for your medical society. Address Professional Service Department.



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* *Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

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No one measure by itself can provide maximum benefits in rheumatoid arthritis. Modern therapy relies upon a combination of accepted therapeutic procedures:

supportive therapy directed toward increasing resistance, correcting malnutrition and anemia and alleviating pain; more specific therapy in the form of gold compounds—the only remedies producing strikingly favorable and lasting results.²⁻⁶

SOLGANAL-B OLEOSUM

Among gold compounds, SOLGANAL-B OLEOSUM (ourothioglucose) has been preferred by most clinicians. Its therapeutic efficacy is unequalled and its safety is greater in respect to severe toxic reactions.⁷

PACKAGING: SOLGANAL-B OLEOSUM (ourothioglucose) $C_6H_{11}O_5SAu$; a water-soluble compound containing approximately 50 per cent of gold, suspended in oil for gradual and prolonged absorption.

Ampules of 1.5 cc. Boxes of 1 or 10 Strengths of 10, 25 and 50 mg. per ampule.

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Vials of 10 cc. Boxes of 1 Strengths of 10 and 100 mg. per cc.

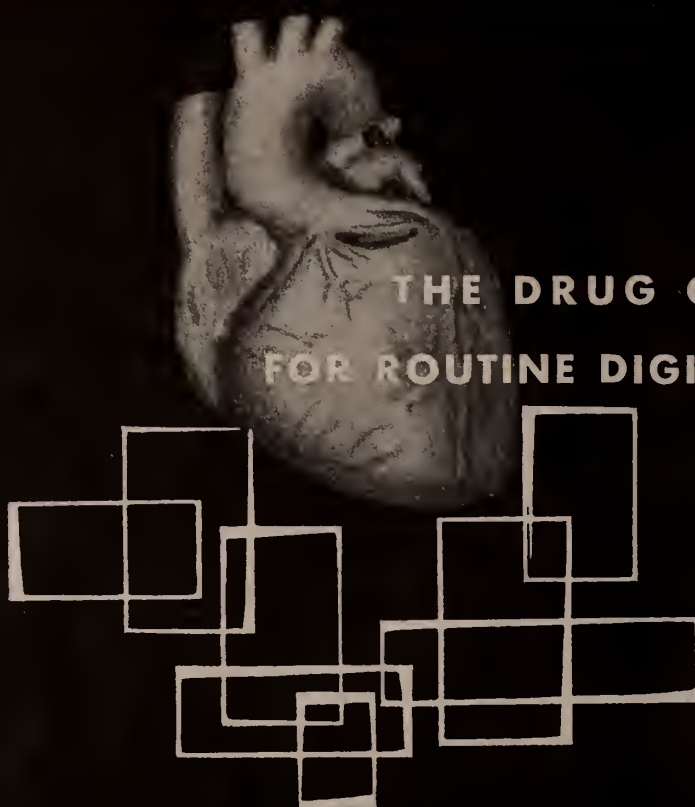
BIBLIOGRAPHY: (1) Dawson, M. H.: J.A.M.A. 117:1562, 1941. (2) Hall, F. C.: M. Clin. North America 27:1309, 1943. (3) Cecil, R. L.; Kammerer, W. H., and dePrume, F. J.: Ann. Int. Med. 16:811, 1942. (4) Hartung, E. F.: J.A.M.A. 117:1562, 1941. (5) Hench, P. S., and others: Ann. Int. Med. 12: 1005, 1939. (6) Freyberg, R. H.: Prac. Staff Meet. Mayo Clin. 17:534, 1942. (7) Hartfall, S. J.; Garland, H. G., and Galdie, W.: Lancet 2:838, 1937.

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Digisidin — pure crystalline digitoxin — has come to be regarded as the drug of choice for routine digitalization.

It is the main glycoside of *Digitalis purpurea*. It is 1000 times as potent as standard digitalis leaf. Hence such small doses are needed that it is nonirritating to the gastro-intestinal tract.

Digisidin — standardized by weight and by bio-assay—never varies in composition or potency.

It is absorbed completely when given by mouth. Digitalization may be accomplished in from 6 to 10 hours by one oral dose (usually only 1.2 mg.).

Available in tablets of 0.1 and 0.2 mg. in bottles of 50, 100 and 500.

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Brand of Digitoxin (crystalline)

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Only **PROTOLAC** means...

- ♦ whole protein therapy
- ♦ with 100% biological value
- ♦ in palatable form

Carefully selected and blended *whole proteins* and high-protein products from animal and vegetable sources supply not only all essential amino acids, but also all the *unidentified* factors which serve to make *intact proteins* "better than complete amino acid mixtures or protein hydrolysates for certain clinical purposes."*

• Most important, Protolac possesses an amino acid pattern which insures *100% biological value*—shown by bio-assays. It thus can give **BETTER CLINICAL RESULTS** with **LOWER DOSAGE**. • Highly acceptable to patients because of its *palatability*, Protolac is indicated for *oral* high protein therapy pre- and postoperatively, in peptic ulcer, malnutrition, pregnancy and lactation, liver and kidney diseases, or whenever increased dietary protein of optimum nutritional value is required. Protolac may be combined readily with milk or other foods. Recipe suggestions with every jar.

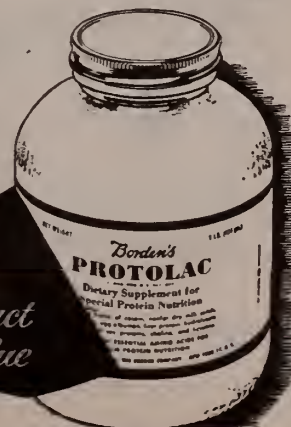
* Editorial, J.A.M.A., 131:826, 1946.

Formula: Protolac is a powdered blend of casein, non-fat dry milk solids, lactalbumin, egg albumen, liver protein, hydrolysate of yeast and soy proteins, choline and L-cystine. Available in 1-lb. jars at all pharmacies.

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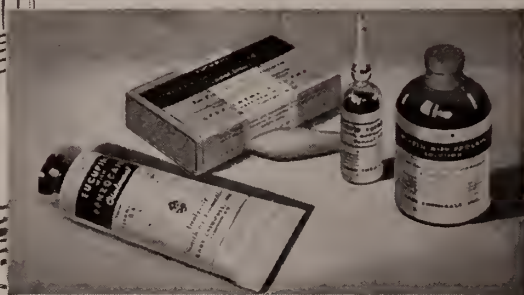
STAYING POWER



... The gruelling run of Pheidippides from Marathon to Athens, carrying the news of victory over the Persians was a feat that called for remarkable endurance. This test of stamina was so outstanding that the word "marathon" has become a synonym for prolonged endurance or staying power.

STAYING POWER, which is so frequently sought in local anesthetics, is absent in most preparations since they exercise only a short-lived influence. But EUCUPIN (isoamylhydrocupreine) is different. It provides:

A gratifying prolonged period of intense anesthesia. . . . An inhibition of supervening hyperesthesia, and . . . Enduring freedom from pain lasting for hours, even for days.



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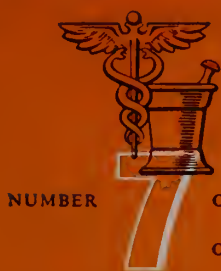


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How Supplied—For infiltration anesthesia: EUCUPIN WITH PROCAINE SOLUTION in 30 cc. rubber-capped vials, and EUCUPIN SOLUTION in OIL in 5 cc. ampules, boxes of 6, 24 and 96. For topical application: EUCUPIN OINTMENT, in 1 oz. tubes and 1 lb. jars and EUCUPIN SUPPOSITORIES (Rectal), boxes of 12.

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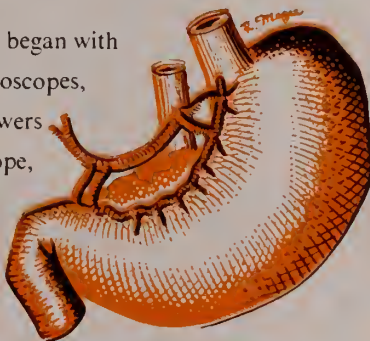
OF A SERIES HONORING THE CONTRIBUTIONS

OF EMINENT PERSONALITIES OF MEDICINE AND PHARMACY

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THE FACILITIES and effort of the Harrower Laboratory, Inc. are pledged to service of the allied professions of medicine and pharmacy and the best interests of public health.

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Designed for maximum protection and repair of gastric ulcer, Malcogel* offers a therapeutic pattern in which

1. immediate and prolonged buffering and adsorbent action . . . fit in with
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Available in 12 and 32 ounce bottles. Malcatabs* are available in bottles of 100 and 500 tablets.

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THE promise of love and marriage lies before the young woman like a treasure-chest of jewels. To unlock and possess these riches, no key is so fitting as that of vibrant health. Many factors of diet, of hygiene, and of psychic adjustment are essential. Beyond these elements endocrine balance is also important to budding womanhood. Those not so fortunate as to possess the endocrine equilibrium necessary for health present the physician with complex problems. Fortunately, more of the clinical unknowns in these cases are being solved through knowledge of the steroid sex hormones. As examples, the relief of dysmenorrhea and metrorrhagia are indicative of their importance. In such work the Ciba development of hormones in pure chemical form has contributed the basis of many present-day therapeutic advances.



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1. Greene, R. R.: Int. Abst. Surg., 74: 595, 1942.

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CASE C.A. AGE 23

Failure of development of secondary sex characteristics. Therapy with gonadotropic hormones and radiation therapy to pituitary and ovarian regions — unsuccessful.

Cyclic therapy with estrogens and progestin over a period of two years resulted in cyclical uterine bleeding, breast development and an increase in pubic and axillary hair.

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Libby's exclusive process of homogenization provides these advantageous features in Libby's Baby Foods: Rupture of cellulose capsules; uniform dispersion of food solids throughout the food mass; absence of liquid separation; easier availability of nutrients. Mothers will tell you their children like Libby's, that the satin-smooth texture of Libby's makes for ready acceptance by the infant. And mothers appreciate the fact that Libby's Baby Foods flow freely through regular size nipple openings when mixed with the milk formula.



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THE LANTEEN DIAPHRAGM is rigid in one plane, therefore easy to place. When largest comfortable size is fitted, if entering rim lodges against cervix, trailing rim cannot be forced into pubic arch.

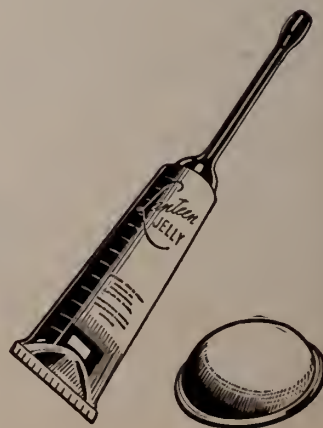
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A NEW

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WITH EXCEPTIONAL ADVANTAGES

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AN INCIDENCE OF SIDE-EFFECTS OF LESS THAN 1%.

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AVAILABLE: In small coated tablets of 0.1 mg. (white) and 0.5 mg. (red) in bottles of 100 and 1,000.

⁽¹⁾ Barnes, J.: Brit. M. J., 1:601, 1942; ⁽²⁾ Sevringhaus, E. L. and Sikkema, S. H.: Am. J. Med. (Vol. II, March, 1947); ⁽³⁾ Finkler, R. S. and Becker, S.: J.A.M.W.A., 1:152, 1946; ⁽⁴⁾ Finkler, R. S. and Becker, S.: A Preliminary Evaluation of Dienestrol in the Menopause, Am. J. Obst. and Gynec. (Vol. 53, March, 1947); ⁽⁵⁾ Cantarow, A., Rakoff, A. E. et al: Preliminary Studies of Dienestrol (Tentative Title) to be published; ⁽⁶⁾ Gordon, E. S.: Value of Dienestrol in the Menopausal Syndrome (Tentative Title) to be published.

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Treat the itching, too

In CHICKENPOX, MEASLES and SCARLET FEVER your first care will be the systemic symptoms. Then, the distressing itching and the dangerous urge to scratch must be controlled, to guard against infection and scarring.

Control the itching with ENZO-CAL.

ENZO-CAL contains near-colloidal calamine and zinc oxide with benzocaine in a soft, pleasantly fragrant, greaseless cream. *Its soothing action is prompt and prolonged.*

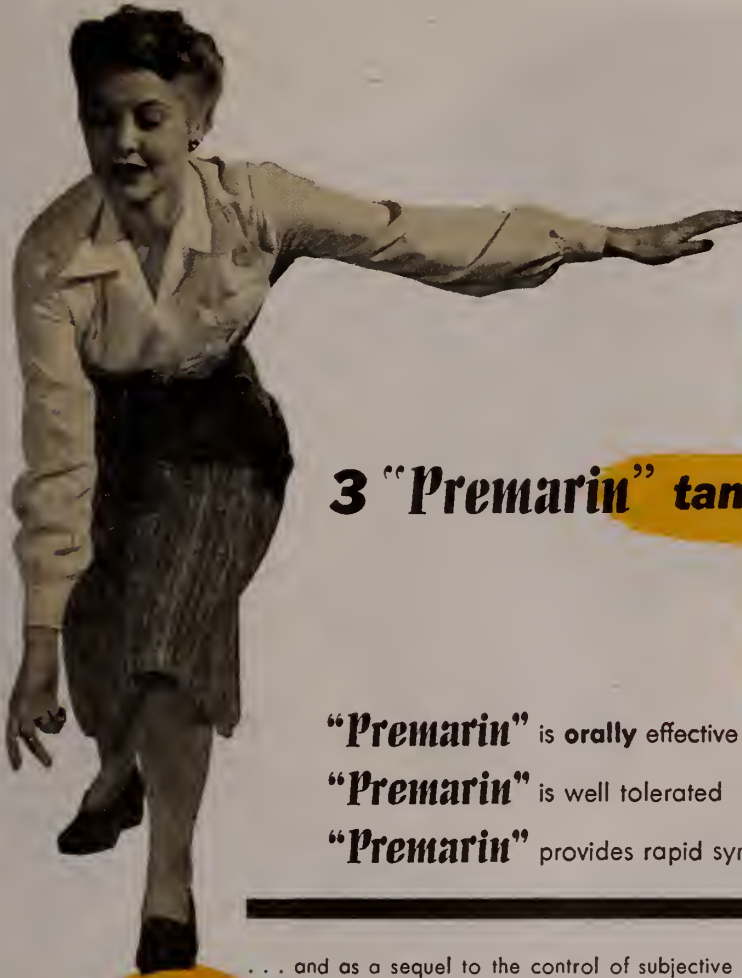
Parents like it because it is so clean, convenient and pleasant to use. Will not stain clothing or bed linen.

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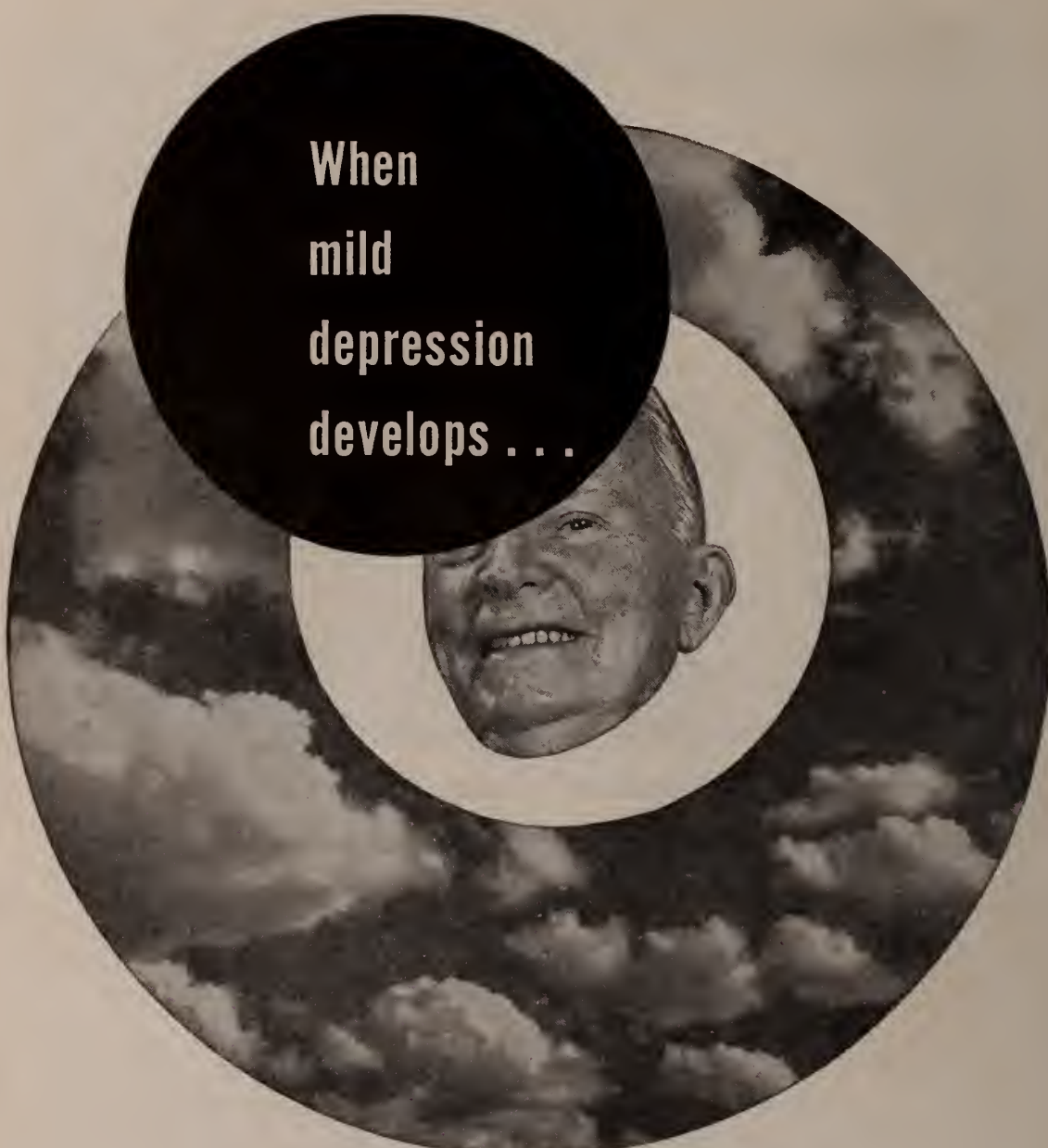


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The Illinois Medical Journal

May, 1947

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Editorials

POST GRADUATE CONFERENCES

Nearly seven years ago, the Illinois State Medical Society through its House of Delegates and by action of the Council, to which group the House of Delegates referred the request, approved the holding throughout the State of Illinois of one day post-graduate conferences. By action of the Council, the Committee on Post-Graduate Medical Service was created, and to it was delegated the responsibility of making necessary arrangements for these conferences, which were primarily intended to be arranged on a Councilor District Basis.

Efforts were made to conduct one post-graduate conference in each of the 10 down-state councilor districts each fiscal year. At the earlier conferences which were conducted, the program began at 9:00 A. M., with at least three speakers scheduled for the forenoon session. A complimentary luncheon was usually served with the compliments of the host society, and usually about five speakers appeared on the afternoon program. At 5:00 P. M. thirty minutes was devoted to round table conferences, with each of the speakers who had appeared during the day having a room allocated for himself and those in attendance who desired more information on the particular subject he had discussed. In this way no time was allocated for the discussion of papers during the conference. Dinner was served in the evening, and usually one or two speakers appeared on the evening program. It was inter-

esting to note that almost invariably those present remained for the entire conference, and there were usually more present at the end of the evening session than when the conference opened early in the day. These programs varied quite considerably, in that the Committee was desirous of learning what type of talks or other presentations were most popular among the many attendants.

Frequently one hour or more was devoted to a clinic on heart disease or some other interesting subject. Arrangements were made in advance for the selection of several unusually interesting cases which were presented in much detail, with carefully prepared histories available, some reports of special examinations, cardiograms, x-ray films, or perhaps laboratory reports to aid the clinician, and the individual case was discussed before the assembly. Several times clinico-pathological conferences were scheduled, with perhaps an internist, a surgeon and a pathologist participating. The internist usually gave the history of the case at hand, his tentative diagnosis, then referral to the surgeon. The latter then took over, telling of his own diagnosis and operative procedure. The pathologist then showed the specimens, and discussed them in detail.

During the early part of the war, at most of these conferences the work of the Procurement and Assignment Service was discussed usually in the evening, and on several occasions a high

official from the Army Officer Procurement Office was present to tell the need for medical officers in the services. Other timely subjects of general interest were likewise presented at many of these conferences.

It was frequently noted that at most of these conferences physicians were present from as many as 25 different counties, some coming 150 miles to be present. During the past year ten post-graduate conferences have been conducted, all well attended and with well balanced programs, arranged according to the desires of those physicians within the area served. Expenses of speakers have been paid by the Committee on Post-Graduate Medical Service. The speakers have been solicited by the committee, which arranges the programs, and other essential details, with the local arrangements being made by the host society.

The programs are printed and sent to a large

mailing list from the office of the State Society Secretary, and with the programs invariably are sent return postcards, these going to the local society secretary in which the signer asks for reservations for the complimentary luncheon and the dinner, thus permitting the arrangements to be made with the local catering staff.

The attendance at these post-graduate conferences has been excellent, as many as 250 physicians having been registered at some of them, although during the war the attendance was reduced with so many Illinois physicians with the Armed Forces. In order that an accurate check can be made on the number of physicians attending the conferences each year, registration cards have been devised and one or more representatives from the State Society Secretary's office are responsible for the registrations.

Robert S. Berghoff has been chairman of the Committee on Post-Graduate Medical Service

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since its organization, and he has had a highly capable and interested group serving on the Committee each year, and frequent meetings are held in the effort to improve this service to the membership of the State Society. Each year since the beginning of this work, the House of Delegates at the annual meeting has insisted that the post-graduate conferences be continued and efforts made to increase the number to be arranged during the coming year, if at all possible.

Each year at the annual meeting, the official handbook containing all society reports, is handed to all members of the House, and it is the duty of the members to look over these reports which are referred to reference committees, and they are privileged to go before the committee to criticize or make any constructive suggestions as they may desire. They will, of course, be permitted to tell the reference committee to which the report of the Committee on Post-Graduate Medical Service is referred, what they think of the post-graduate conferences as they have been arranged and conducted, and make any constructive suggestions as to how they believe this service can be improved.

When the report of the reference committee is presented at the second meeting of the House of Delegates, proper action will be taken, and the post-graduate service to be presented during the next fiscal year will depend quite considerably on the recommendations of the House of Delegates, which in turn will be referred to the Council for appropriate action.

PENDING LEGISLATION RELATING TO HOSPITALS

The Report of the Illinois Hospital Survey and Plan nears completion. As this important project moves forward, the 65th General Assembly is considering seven bills which will strengthen the long range planning and ideals set forth in this report. Equally important, certain of these bills, if enacted into law, will fulfill the requirements enabling Illinois to participate in the Federal Hospital Construction Program. Such participation means that Illinois may expect to receive a total of nearly \$14,000,000 from Congressional funds over a period of five years to aid communities in the construction of much needed hospitals.

HOUSE BILL 284

To qualify for Federal aid for the construction of hospitals, the State must designate a single agency to administer the hospital construction program. In addition, a hospital advisory council must be created to cooperate and work with the State agency in carrying out such a program.

House Bill 284, introduced by Representatives H. B. Harris, Lewis and Caton, amends Sections 6 and 55 of the "Civil Administrative Code of Illinois", so as to meet both of these requirements.

This bill designates the Department of Public Health as the sole State agency to administer the program. It creates also a hospital advisory council of seventeen members, specifying that five members shall be selected from the field of hospital administration, five from the field of medicine and dentistry, and five from the general public. The Director of Public Health and the Director of Public Assistance are ex-officio chairman and member, respectively.

HOUSE BILL 283

House Bill 283, also introduced by Representatives H. B. Harris, Lewis and Caton, relates to the licensing and regulation of public and private hospitals, sanitariums, nursing homes and allied institutions. It is patterned closely after the model hospital licensing law recommended by the Council of State Governments.

To be eligible for Federal hospital construction funds, Illinois must enact legislation which establishes minimum standards of operation and maintenance of all hospitals receiving Federal aid. House Bill 283 will accomplish this purpose.

The bill, however, goes beyond this purpose inasmuch as it applies to hospitals generally, regardless of whether they receive Federal aid. Thus all hospitals and related institutions would be required to maintain minimum standards. This provision is in accordance with the official recommendation of the Illinois Hospital Association as well as the State Advisory Council on Hospitals.

House Bill 13, introduced by Representative Welters, also provides for the licensure of hospitals and related institutions. This bill, however, does not have the endorsement of the Illinois Hospital Association.

HOUSE BILL 281

This bill, introduced by Representatives H. B. Harris, Lewis and Caton, is a companion to House Bill 283. According to existing law, license fees accompanying applications for license must be deposited immediately in the State Treasury. If a license is denied, the State is unable to refund the fee. House Bill 281 enables the Department of Public Health to hold a hospital license fee, in the form of a check or money order, until an application for license is approved or denied. In the event of approval, the bill provides that the fee shall be deposited in the State Treasury; in the event of denial, it shall be returned to the applicant.

HOUSE BILL 282

House Bill 282, introduced by Representatives H. B. Harris, Lewis and Caton, is a second companion bill to the one on hospital licensing. The present Cities and Villages Act excludes municipal maternity hospitals from licensure by the State. Inasmuch as the hospital licensing bill (House Bill 283) includes such hospitals and thereby makes them eligible for Federal aid, the Cities and Villages Act must be amended. House Bill 282 accomplishes this purpose.

HOUSE BILL 280

The 64th General Assembly in 1945 appropriated \$3,850,000 for the construction of four down-State tuberculosis sanitariums and one in Cook County. None of these funds were spent because of the conditions that prevailed in the building industry and also because the Attorney General ruled that there existed no law which authorized the construction and operation of State tuberculosis sanitariums.

To overcome these difficulties, the 65th General Assembly will, in all probability, re-appropriate these funds - adjusted to compensate for increased costs. As to legal authority, House Bill 280, introduced by Representatives H. B. Harris, Lewis and Caton, authorizes the construction of State tuberculosis sanitariums and places in the Department of Public Health the authority to maintain and operate them.

HOUSE BILL 315

House Bill 315, introduced by Representatives H. B. Harris, Bruer, J. W. Smith and J. E. Miller, calls for a State appropriation of \$5,580,000 to aid public and nonprofit agencies in the construction of general hospitals. This appro-

priation would be independent of the Federal hospital construction program.

The need for the construction of general hospitals is extensive and acute. More than 200 local projects are now under serious consideration with plans in various stages of development. The demand for governmental aid is general. The Federal government proposes to allot \$2,770,725 annually to Illinois for five years for this purpose but not more than one-third of the cost of any project can be paid with Federal money. The anticipated Federal funds will meet only a fraction of the needs. Many communities where the need is greatest will not be able to raise two-thirds of the construction costs. A State appropriation of \$5,580,000 for the next biennium to match the Federal allotments and make possible the payment of two-thirds the cost of hospitals in needy communities is highly desirable.

HOUSE BILL 156

This bill, introduced by Representative Thornton, creates a joint commission to investigate institutions maintained and licensed by the State of Illinois for charitable, penal or welfare purposes. The commission is to report its findings to the 66th General Assembly and submit recommendations for any legislation that is deemed advisable.

Such an investigation would include methods of licensing and minimum standards required for licensure. The Department of Public Health is now responsible for licensing maternity hospitals and nursing homes. Pending legislation (House Bill 283) would require all hospitals to be licensed. Thus the work of such a commission would be of great value to the General Assembly in meeting the problems brought to them as the result of licensing. The Department, as well, would benefit as the commission members would undoubtedly contribute helpful suggestions and bring about mutual understandings.

HOUSE BILL 329 and SENATE BILL 221

House Bill 329 providing for the establishment of hospital authorities was introduced by Representatives Lewis, Lollar and Frazier. An identical bill, Senate Bill 221, was introduced in the Senate by Senators Lyons, Peters and Crisenberry.

The purpose of these bills is to enable the people in any compact and contiguous area, without respect to county lines, to create by

by popular vote a board to be known as a hospital authority, and to tax itself for the construction and operation of a hospital. The hospital authority is governed by a board of commissioners, the members of which are appointed by the county judge and/or the executive officer of any municipality of 5,000 inhabitants or more within the hospital authority. The bill follows to some extent the pattern set by the existing State law relating to airport authorities.

These identical bills have several merits. In the first place they will enable people in a natural trade area to join forces in providing adequate hospital facilities for the area. Trade areas in many instances are not contained wholly within one county. The Illinois Hospital Plan will propose that the State be divided into what is known as hospital areas. Such areas will conform to trade areas. They will contain a population large enough to support a hospital that

can be operated efficiently. Hospital areas will cut across county lines but will not divide townships or road districts. Within the area, the hospital will not be more than 25-30 miles from any of its residents. The hospital authority bill provides the necessary legal authority for carrying out the proposal of the Illinois Hospital Plan.

A second advantage of the bill is the authority granted for raising hospital construction funds in an area extending into two or more counties. As already explained, the Federal Hospital Program requires that two-thirds of the construction costs for any hospital project must come from State or local sources. The proposed hospital authority act will enable the hospital area to raise its share of the cost. In addition, the cost of operating such hospitals can be assured. This is another requirement for proposed hospitals receiving Federal grants-in-aid.



DOCTOR ASKS FOR TOTAL WAR AGAINST LONG TERM ILLNESS

"Nothing short of total war waged by every stratum of society will avail against the devastating and far reaching consequences of prolonged illness, for it is among the meanest of the enemies of man," according to E. M. Bluestone, M.D., of New York.

Writing in the April 12 issue of *The Journal of the American Medical Association*, Dr. Bluestone, who is director of the Montefiore Hospital, points to the recent achievements of medical science with chemotherapy, antibiotics and the application of blood and its fractions as minimizing the menace of short term illness and maximizing the menace of long term illness, which now stands out in bolder relief.

"Purely as a matter of self interest," states Dr. Bluestone, "since persons are living longer than ever before, and since the specter of long term illness is being confronted more than ever,

hospitals must be reorganized to conform to the changing requirements of society and to arrange for the hospitalization of patients for longer periods of time."

The author proposes the following plan: "Every general hospital should have a Department for Continued Care attached to and drawing on its central diagnostic and therapeutic facilities. The prevailing method of isolating and segregating the long term patient at a distance from the general hospital has been successfully tried in only one philanthropic hospital [Montefiore Hospital] in all history, and this exceptional hospital is in reality a general hospital, with the only difference that its patients are sick for long periods of time. This hospital teaches, by its experience with the problem, that only by integration on a continuing basis can one hope to solve the problem to the satisfaction of medical scientist, social worker and a hospital economist alike."

State Department of Public Health

RECENT ADVANCES IN PUBLIC HEALTH

ROLAND R. CROSS, MD.

Director of Public Health

Much has happened since V-J Day. Most of it has been on the side of progress and improvement so far as public health affairs are concerned. Recent years have been eventful in that respect. The immediate and distant future holds out the promise of even greater advancements than the brilliant achievements of the past in bringing about better health for more people.

Out of the war came the practice of thinking in world-wide terms, the habit of bold action and an increased confidence in the scientific method. Public health leaders have been quick to capitalize on this situation. Tangible evidence of their alertness, initiative, and foresight is the World Health Organization.

The function of this agency, which was officially created on July 22, 1946, is to bring to bear on disease-produced trouble spots anywhere on earth the resources of scientific knowledge useful in the protection and improvement of health. It has the authority to assist governments in strengthening their health services in order to control and eventually eradicate disease at its source in all parts of the world. It is authorized to promote all kinds of activities calculated to improve health, to engage in research, to maintain an epidemiological service, to assemble and distribute statistical information and to undertake direct services in emergency situations. The World Health Organization represents a monumental step forward not only

in international cooperation and public health service but also for the public health profession.

Within our own country, Congress enacted Public Law 725, known as the Hospital Survey and Construction Act. The aim of this law, which authorizes the appropriation of \$75,000,000 annually for five years, is to stimulate through Federal aid the construction of hospitals wherever needed throughout the United States. Any public or non-profit hospital project in an area with a deficient number of hospital beds will be eligible to apply for aid under the provisions of the law. One-third of the construction costs of approved projects may be paid from Federal funds when they become available. The anticipated allotment to Illinois for this purpose is approximately \$2,770,000 per year.

Other evidence at the national level of the broadening horizons of the public health movement was the appropriation by Congress of special funds for tuberculosis and cancer control and for industrial hygiene and the passage of a law authorizing an appropriation for mental health. There are pending, moreover, numerous bills that would expand substantially the participation of the Federal government in public health matters in several new directions.

As to affairs in Illinois, the calendar of forward looking events has been crowded. Last November the people in 17 counties voted heavily in favor of tax levies for the creation and support of local health departments. This was the largest block of counties that ever took such a step simultaneously in any State. Even more sig-

nificant than merely approving the tax levy, several of the counties voted to pool their resources for public health purposes. Thus Hardin, Johnson, Massac and Pope counties voted overwhelmingly to establish a health department which will serve the four counties jointly. Likewise Alexander and Pulaski, Lawrence and Wabash and DeWitt and Piatt voted to set up bi-county health departments. Previously, the cities of Bloomington and Normal had voted with McLean County in the creation and maintenance of a health department that is serving the entire population of that county. On April first of this year Quincy voted heavily in favor of integrating its health department with the previously established Adams County Health Department.

These election returns are concrete and tangible evidence that people at the local level are willing and anxious to cooperate and work together for the improvement of health without regard to political boundary lines and jurisdictions. The World Health Organization, on the other hand, demonstrates that the same spirit prevails at the international level so far as health matters are concerned. By the same token, these events express an almost universal faith and confidence in the public health profession.

Of equal importance to the growth of local health departments in Illinois are the steps taken by the State Department of Public Health to implement Public Law 725 in this State. The required survey of hospital facilities has been completed. Work on the required long-range hospital construction program is well advanced. Pending legislation in the Illinois General Assembly would clear the way from a legal viewpoint for full participation in Federal aid. A bill has been introduced also, House Bill 315, which would appropriate \$5,580,000 of State money to match the anticipated Federal funds for hospital construction purposes during the next two years. Passage of this bill would make possible the payment from official sources of two-thirds of the construction of eligible hospitals in needy communities. The realization of the purposes of this program will be a great forward step in the realm of public health.

The growth of local health departments and the projected hospital construction program have tended to bring together on a cooperative

basis as never before in Illinois the medical, hospital and public health professions. More than at any previous time these three professional groups are planning and working toward the achievement of the common purpose of better health for more people. Differences in viewpoint that once seemed insurmountable have either been cleared away or are in the process of elimination. Each group now recognizes the importance and advantages to itself of the services and functions that each of the other groups is qualified and prepared to give. Each recognizes that only through united and cooperative effort can the common goal of all be reached.

The basic developments referred to above open up large opportunities for trained professional talent. Acute shortages exist already in all categories of professional public health personnel. Demands are running ahead of supplies. Considerable shifting about of workers seeking to land in the most advantageous spot is the order of the day. This situation, I believe, is temporary. The remedy lies in the training of more people. Effective steps in that direction have been taken. Several foundations offer all expense scholarships to qualified applicants. Liberal stipends are offered by the State Department of Public Health. These opportunities are attracting the attention of many young people with excellent backgrounds. It appears likely that all available funds for training purposes during the next school year will be absorbed by grants to well qualified applicants, particularly as to nurses and health educators. Altogether, the outlook is bright for meeting personnel demands in Illinois and for building up a public health profession strong alike in numbers and in professional stature.

HEALTH EXAMINATION OF SCHOOL CHILDREN

"Get these darn kids out of my office!"

That was the actual reply of one physician to a school administrator who had referred several pupils to him for a physical examination. The administrator was merely complying with the law and he was a bit non-plussed with the result. On the other hand, it is not hard to understand the doctor's attitude. Absorbed as he was during those days with the multiplicity of illnesses demanding his energies night and day, we can't

blame him for being distracted when confronted with three normal boys who had no complaints, especially when the waiting room was filled with many patients who were more urgently in need of his attention. This was an isolated experience, but since the law is statewide, there undoubtedly are other physicians and dentists who have not articulated their feelings but who may have been possessed with the urge.

With the return of physicians and dentists from military service, the almost superhuman demands upon the medical and dental professions are now beginning to ease. Doctors are still busy but at least there is greater possibility of giving some thought to what lies behind the situation which is described above.

During the 63rd Session of the State Legislature, there was enacted a law, later amended*, *requiring as soon as practicable a physical examination of pupils in the public elementary and secondary schools at the time of entrance into the first grade and every fourth year thereafter.* Dental examination is a definite part of the procedure. Provision is made in the law for those pupils whose parents object to such examinations on constitutional grounds.

If one were to confine his thoughts to the law itself, he would appreciate its many limitations for all of us realize that a physical examination is of no value unless it is associated with a sound purpose. Cumulative records of these examinations, as provided in the law, are likewise insignificant if they are not to be a part of a constructive program designed for the betterment of the pupil.

While these points are not expressly evident, actually this section of the School Code is a part of a statewide school health program which is much wider in scope. The program incorporates training in health education for teachers, school sanitation, community health, correction or remedial defects among pupils and the functional teaching of good health in our public schools. The physical examination of the individual pupil, really an appraisal of his physical and mental abilities and the possibilities of improving them, is an extremely important part of his health education if book learning is to be translated into a sound pattern of healthful living.

The present school health program, a relatively new undertaking in this State, began in 1943 when the State Office of Public Instruction and the Departments of Public Health and Registration joined forces in the preparation and implementation of an all inclusive plan. Much detailed planning was accomplished and is still under consideration by a Liaison Committee composed of 19 members representing the medical, dental and teaching professions. One of the major achievements is the preparation of two basic plans, "Health Education and the School Health Program," and "Student Health and Health Education in Teacher Training Institutions." As an outgrowth of the committee's deliberation, summer workshops and regular courses in health education for teachers have been and will continue to be offered in teacher training institutions; local health departments are cooperating more fully with school authorities; suitable materials for teaching pupils are being developed; consultation is continually being given to health departments and schools by qualified representatives of the State departments. Simultaneously, individual schools are increasing their interest in health training while communities, such as Peoria, Champaign and others, are recognizing their responsibilities by creating local school health committees in order to coordinate the efforts of all agencies concerned.

The services of the physician and dentist, particularly in regard to the pupils themselves, are vital to the success of the plan. What Johnny learns in school can become to him a very practical advantage in life as the understanding physician or dentist explains his findings, why defects should be corrected, how to maintain good health. The parent, too, perhaps begins to understand better his responsibility to Johnny. The team of teacher, pupil, parent and school nurse could accomplish little without the active interest of the physician and dentist.

The question then arises as to how best to fulfill the intended aim of the physical examination requirement. In several communities agreements have resulted in various systems for examining children, some utilizing the doctors' offices and others providing for a central examining center. Regardless of the system, however, and regardless of whether the family or school physician performs the examination, it can be of the greatest

*Illinois Revised Statutes, Chapter 122, Section 27-8, 1945

value when it is based on certain principles as outlined in Suggested School Health Policies distributed by the American Medical Association and in Health Education and the School Health Program, issued jointly by the three State Departments.

The examination should be broad enough in scope to discover all abnormalities which can be detected by observation, and should include: (1) a careful physical examination and a careful history, with tests for vision, hearing and speech (which may be done by teacher or nurse); (2) a consideration of those subjective and behavior problems called to the examiner's attention by the teacher, nurse or parent; and (3) the presentation to the parent of a practical amount of health information by the examiner at the time of the examination.

The evaluation of all findings should be summarized by the examiner. If there are definite abnormalities needing correction, these should be called to the attention of the parent. In an efficient school health program parents are not only encouraged, they are requested to take the pupil to the family physician or dentist for the correction of any defects discovered. Few children will reach this stage of the program unless school health examinations are followed up by public health nursing visits to the homes and frequent nurse-teacher conferences.

School health examiners should take as much time as is practical to make the examination interesting and educational to the child, teacher and parent; and the entire procedure should be a pleasant health experience which should influence the child and parent to demand good medical care and motivate them to more healthful living. Detailed individualized education is probably not a primary objective on the part of the physician. However, he should take time to explain the implications of deafness or serious defects, and to answer all questions. In group programs it may at times be desirable to talk to the group or class as a whole on important or prevalent defects or problems.

It is recommended that the child be stripped to the waist*, with the shoes off. The pupil should be examined from head to foot, includ-

ing the genitals in the boys. A reasonable degree of privacy and segregation for the examiner, the patient and the parent is essential if best results are to be obtained. Privacy is easy to obtain in a physician's office; it is sometimes difficult in a one-room school. With sufficient privacy, a stethoscope, otoscope, nasal speculum, tongue depressor, and a good light, and with the child stripped before him the examiner can observe the expression, mannerism, alertness, skin texture and muscle firmness, as well as physical defects. He gives consideration to the history, subjective symptoms and behavior.

Pupils who have serious defects, who are suffering from prolonged or repeated illness, or who engage in strenuous athletic activity may need more frequent examinations than required. The physician is the best judge as to the need and frequency of repeated examinations.

In general, it is recommended that in group examinations an average of from ten to fifteen minutes per child be allowed as the period during which the parent and child are with the examiner, exclusive of the time necessary for vision, hearing and speech testing, weighing and measuring, and time consumed in other routine preparatory work. Notes should be made at the time. If more than six examinations per hour are scheduled, all parties concerned should clearly understand that some valuable features of a health examination are being sacrificed. In all probability the family physician will wish to give the individual pupil even more time.

As to dental examinations, every child should have the benefits of such an examination by a dentist at least once a year. An x-ray examination should be made wherever feasible to fulfill the requirements of a comprehensive dental examination.

Local dental groups in cooperation with school authorities should decide where dental examinations are to be held — whether in the schools or in the offices of private practitioners. Studies have shown that as many complete corrections can be secured by an educational program through which all of the children go to the office of the private dentist, or the dental clinic, as by a program where examinations are made in school. It is desirable that dentists comply with

*A garment or robe should be worn by the older girls.

Correspondence

NATIONAL CONFERENCE OF COUNTY MEDICAL SOCIETY OFFICERS

First call for all County Medical Society Officers for the first annual "Grass Roots Conference" in Atlantic City on June 8 at 2 P.M. This is our party, our show, and we want it to be a good one. We, all of us county medical society officers, had our first committee meeting March 30 and talked most of the day about the kind of a conference that would best achieve our purpose, which is to find out how the American Medical Association can be of most help to the individual American doctor. We decided that the conference should concentrate on local problems; should last three hours; that it should move with snap and precision; and that, insofar as is possible, everyone present should have the opportunity of finding out just what goes on and how the facilities of medical organization — national, state and local — may be made available to the individual doctor.

Of course, many types of programs could be developed, but we of the Committee on Arrangements feel that a sort of workshop question and answer conference would be the most effective.

So here's the set-up for the meeting: On the stage will be a panel to answer questions. Also available will be the officers and the heads of the departments of the American Medical Association. Questions will come from the floor in regard to any subject having to do with medical organization problems. All the questions must be written and may be submitted before or during the meeting. Members of the Committee

will process the questions, and the moderator will designate the person or persons who in his mind can throw light upon the particular subject under consideration. Each individual so designated will be limited to *three* minutes. This should allow for discussion on a variety of subjects and answers to a large number of questions.

Here's the breakdown of the major fields of consideration and the subjects that might well be covered by the Conference:

1. Professional Relations Problems
 - A. The doctor and the medical society
The functions and duties of society officers, committee organization, etc.
 - B. The doctor and the hospital
staff problems
 - C. The doctor and the specialty boards
 - D. The doctor and postgraduate education
 - E. The doctor and legislation
2. Medical Service Problems
 - A. Distribution of medical care
 1. Prepayment plans
 2. Rural health
 3. Labor union programs
Hill-Burton Act and health centers
Fund raising groups
American Cancer Society, National Tuberculosis Association, etc.
3. Public Relations Problems
 - A. The doctor and the patient
The doctor and the public
Remember — This is merely a preliminary program. We want your suggestions as to questions or any ideas you may have as to how this

Conference may best achieve its purpose; that is, to

"Make the American Medical Association the working partner of every individual physician."

COMMITTEE ON ARRANGEMENTS

A. M. Mitchell, M. D., Chairman

ST. FRANCIS HOSPITAL, EVANSTON, EXPANSION FUND CAMPAIGN

A Building Expansion Fund Campaign for \$1,375,000 is in progress for Saint Francis Hospital of Evanston, Illinois, which serves an area with a population of 700,000 where there is a shortage of 1,643 hospital beds. Dr. Irving Perrill, of 6101 Sheridan Road, Chicago, is General Chairman of the Campaign Organization.

The Fund will be used to erect an addition to the main building and will consist of five major elements, designed to increase the hospital's bed capacity and to provide additional facilities for the hospital's specialized departments.

The following major sections of the new addition will be an outpatient department, with social service in conjunction; communicable disease sections laboratory and adjunct facilities; internes quarters, and additional beds. The new wing will consist of four stories with ground floor basement.

The addition also will include general offices, waiting rooms, medical treatment rooms, pediatric rooms, a special eye department, ear, nose and throat department, admitting room offices, a pharmacy, staff rooms, and private patient and nurse's facilities.

The expansion will relieve congestion in overload departments and provide additional quarters for the hospital's emergency service. The plans also include arrangements for a new library and museum. Special attention will be given to educational facilities.

Dr. Perrill was Chief of the Medical Staff of the hospital for two consecutive terms and has been associated with the hospital for seventeen years. He was Major in the Medical Corps in World War II.

General Charles G. Dawes is Honorary Chairman of the Campaign Organization. Sister M. Florina, O.S.F., R.N. is Administrator of the hospital.

GASTROENTEROLOGISTS TO MEET IN ATLANTIC CITY

The National Gastroenterological Association will hold its 12th Annual Convention and Scientific Sessions at the Hotel Chelsea in Atlantic City, N.J. on June 4, 5, 6, 1947, affording those interested in attending the centennial celebration of the American Medical Association and the meeting of the National Gastroenterological Association a chance to be present at both.

There will be one Luncheon Round-Table Conference on Thursday, June 5, 1947 at which time Dr. Hyman I. Goldstein of Camden, N.J. will speak on "The History of Gastroenterology and the Development of this Speciality in America".

At the Annual Banquet to be held on Thursday evening, June 5, 1947, the winner of the National Gastroenterological Association's 1947 Cash Prize Award Contest for the best unpublished contribution on Gastroenterological or an allied subject, will receive the prize of \$100.00 and a Certificate of Merit. The guest speaker of the evening will be Dr. Homer T. Smith of the New York University College of Medicine whose subject will be "Plato and Clementine".

Program and further details may be obtained from the National Gastroenterological Association, 1819 Broadway, New York 23, N.Y.

THE JOSEPH A. CAPPS PRIZE

The Institute of Medicine of Chicago offers a prize of \$400 for the most meritorious investigation in medicine or in the specialties of medicine. The investigation may be also in the fundamental sciences, provided the work has a definite bearing on some medical problem.

Competition is open to graduates of Chicago medical schools who completed their internship or one year of laboratory work in 1945 or thereafter.

Manuscripts must be submitted to the Secretary of the Institute of Medicine of Chicago, 86 East Randolph Street, Chicago 1, not later than December 31, 1947.

The manuscript, as submitted, of the prize paper is to become the property of the Institute of Medicine of Chicago.

If no paper presented is deemed worthy of the prize, the award may be withheld at the discretion of the Board of Governors.

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its twenty-fifth annual scientific and clinical session Sept. 2, 3, 4, 5 and 6 inclusive, at the Hotel Radisson, Minneapolis. Scientific and clinical sessions will be given the days of Sept. 3, 4, 5 and 6. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, the annual instruction courses will be held Sept. 2, 3, 4 and 5. These courses will be open to physicians and the therapists registered with the American Registry of Physical Therapy Technicians. For information concerning the convention and the instruction course, address the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

NEW OFFICERS FOR CHICAGO DERMATOLOGICAL SOCIETY

At the Annual meeting of the Chicago Dermatological Society held January 15, 1947 the following officers were elected:

Dr. Francis W. Lynch, President, St. Paul, Minn.

Dr. Stephen Rothman, Vice-President.

Dr. Leonard F. Weber, Secretary-Treasurer.

JEFFERSON MEDICAL ALUMNI SMOKER

Jefferson Medical College Alumni Association is holding a smoker in Atlantic City while the A.M.A. convention is in progress. The gathering will be at the Traymore Hotel on June 11, 1947. Members should plan to include this meeting in arranging their schedule for the trip to Atlantic City.

AMERICAN SOCIETY OF ANESTHESIOLOGISTS

Regional Meeting

In Conjunction With

Chicago Society of Anesthesiologists

Chicago, Illinois

May 29 & May 30, 1947

- I. Clinical Demonstrations. Thursday, May 29.
Illinois Research Hospital — Dr. W. H. Cassels & Associates
Wesley Memorial Hospital — Dr. Mary Karp & Associates

St. Luke's Hospital — Dr. W. Allen Conroy and Associates

Michael Reese Hospital — Dr. B. Stodsky & Associates

University of Chicago Clinics — Dr. H. Livingstone & Associates

Evanston Hospital — Dr. E. Remlinger & Associates

- II. Conferences. Friday, May 30 (Memorial Day)
Congress Hotel. Afternoon, commencing at 1:30 P.M. E. B. Tuohy, M.D., President A.S.A. presiding.

- (1) Methods of Testing Analgesics — Carl C. Pfeiffer, M.D., Chicago, Illinois

- (2) Intradural Vaso-constrictors — Mary Karp, M.D., Chicago, Illinois

- (3) Chicago Keysort Anesthesia Record — W. Allen Conroy, M.D., W. H. Cassels, M.D., Bernard Stodsky, M.D., Chicago, Illinois

- (4) Chloroform, Old — Donald Kind-schi, M.D.

Chloroform, New — Lucien Morris, M.D., Madison, Wis.

- III. Dinner Roundtables with Moderators (10 or 12), 6:00 P.M.

- IV. Evening Meeting. W. Allen Conroy, M.D., President C.S.A. presiding, Symposium on Nitrate Oxide — 8:30 P. M.

- (1) Some Aspects of Nitrous Oxide-Oxygen Anesthesia — F. W. Clement, M.D., Toledo, Ohio

- (2) Oxygen Requirements — W. O. McQuiston, M.D., Peoria, Ill.

- (3) Combinations of Anesthetic Agents & Procedures — E. B. Tuohy, M.D., Rochester, Minn.

Members of the medical profession are cordially invited to attend.

ONE OR THE OTHER

"Cousin Bob," as he was affectionately known, had just passed his 70th year.

"But, Cousin Bob," asked a neighbor commiseratingly, "don't you hate to grow old?"

"Hell, no!" snapped Cousin Bob. "If I weren't old, I'd be dead!"

Original Articles

CARCINOMA OF THE COLON

WARREN H. COLE, M.D.

CHICAGO

Carcinoma usually develops in such an insidious way that the patient scarcely is aware of its presence until it has developed to an alarming degree. Carcinoma of the colon is not an exception to this insidious development, although there are a few mild manifestations which may signify the presence of the lesion. These manifestations are usually so mild that the patient considers them too insignificant to mention unless the physician makes special inquiry regarding them. The profession must, therefore, impress upon the laity the importance of these seemingly insignificant symptoms. The physician must be particularly cautious in his interpretation of minor complaints, such as those presented by patients with carcinoma of the colon, since they are so commonly related also to minor lesions, such as constipation.

Clinical Manifestations.—Perhaps the earliest symptom presented by a patient with carcinoma of the colon is a change in bowel habits, although Cave¹ has very aptly remarked that this in reality is *not* an early symptom. Commonly the patient states that he developed constipation a few months previously, but that recently he has been having an occasional attack of diarrhea alternating with constipation. These minor symptoms may be present for three to six months before other manifestations develop. Occasion-

ally rectal bleeding is an early symptom, but it cannot be relied upon as being a very valuable aid early in the disease except when the tumor is developing in a polyp. Fortunately, many of the patients with carcinoma of the colon do develop pain before the lesion metastasizes. This pain may be fleeting in character and of trivial intensity. It is usually of intermittent type and is commonly of a cramp-like nature, even though obstruction may not actually be present. In a recent study² made of our patients at the Illinois Research Hospital, we noted that 90 per cent of the patients having carcinoma of the left side of the colon had a history of pain and that 70 per cent of the patients with carcinoma on the right side or in the transverse colon likewise had pain.

Anorexia develops fairly early followed closely by attacks of nausea. Vomiting, however, is a rare symptom of carcinoma of the colon. Nineteen per cent of our patients with carcinoma of the left colon had a history of vomiting, compared to 25 per cent of those with carcinoma of the right colon. When this data is analyzed along with the fact that there was proven obstruction in 60 per cent of the patients with carcinoma of the left colon and only 16 per cent of our patients with carcinoma of the right colon, it is obvious that in this lesion vomiting is not very closely related to the presence or absence of obstruction.

Ordinarily, we assume that rectal bleeding is a common manifestation of carcinoma of the right colon. Our studies showed these symptoms to be present in only 50 per cent of this group. We were surprised to learn that 40 per cent of our patients with carcinoma of the left

From the Department of Surgery, University of Illinois College of Medicine and the Illinois Research and Educational Hospitals, Chicago, Ill.

Read before the joint Session of Illinois State Medical Society, May 16, 1946, Chicago.

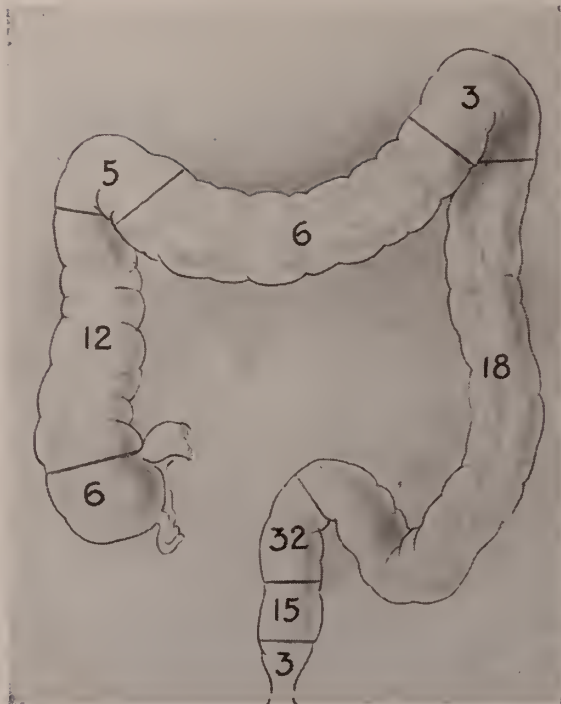


Figure 1. Diagram showing the relative incidence of carcinoma in various parts of the colon and rectum. Note that about 50 per cent are located distal to the sigmoid. (After Cole in Rocky Mountain Medical Journal, March, 1945.)

colon had a history of bleeding. Weakness is a common symptom of carcinoma of the colon, but is late. It is caused by several factors, the two most important of which are loss of blood (anemia) and insufficient caloric intake.

Diagnosis.—Carcinoma of the colon usually occurs in the later decades of life. The average age in our series was 56.4 years. Males predominate over females in a ratio of almost two to one but this disparity is not always so pronounced. Unfortunately, patients with carcinoma of the colon usually come to the surgeon relatively late; in our series, which consists entirely of charity patients, there was an average duration of symptoms of 13 months in patients with carcinoma on the right side as compared to a duration of 8 months on the left side.

Laboratory studies will aid considerably in establishing a diagnosis. In our series, anemia* was present in 75 per cent of patients with carcinoma of the right colon, but likewise in 72 per cent of patients with carcinoma of the left

colon. This equality of anemia on the two sides is contrary to general belief, since it is usually thought that there is a greater incidence of anemia in patients with tumors on the right than on the left side. However, the intensity of anemia was greater (at least in a few patients) in patients with tumors on the right than on the left, as shown by the fact that the average red blood cell count and hemoglobin was respectively 3.85 and 54.4 per cent on the right as compared to 4.06 and 71.0 per cent on the left. Stool examination revealed the presence of blood in the percentages previously mentioned.

Lesions on the right side tend to be bulky. We were able to palpate the tumor in 70 per cent of patients with lesions on the right side in contrast to only 16 per cent on the left. Examinations for palpable tumor is therefore of little diagnostic aid in the establishment of a diagnosis in patients with a lesion on the left side.

Rectal examination with the finger will rarely be of much value in carcinoma of the colon, although it is amazing how frequently one can palpate a tumor located as high as the peritoneal reflection when the patient is standing and straining during the examination. Sigmoidoscopic examination will bring the lesion into view when it is located near the peritoneal reflection or below. Since it is frequently very difficult to differentiate carcinoma of the colon from carcinoma of the rectum by history alone, a digital examination is always indicated in patients presenting symptoms similar to those presented. Of more diagnostic value in lesions of the colon is the x-ray. A barium enema is fairly accurate in detecting these lesions although it must be remembered that there will be a 3 to 5 per cent error in roentgenologic diagnosis, particularly in the early lesions. When the patient has a fairly complete obstruction, a plain x-ray film will usually reveal its presence by the haustrated gas shadows cast by the distended colon.

Relation Of Polyps To Carcinoma.—It has been known for decades that there is a tendency for polyps of the colon to develop malignant degeneration. Swinton and Warren³ made a study of 827 carcinomas of the colon and were able to show that the lesion arose in a polyp in 14 per cent of the cases. Polyps are frequently of congenital type. Coffey and Barger⁴ make the statement that carcinoma is much more like-

*An arbitrary figure of 4,000,000 RBC and a hemoglobin of 80 per cent was used to denote the presence or absence of anemia.

ly to develop in polyps of the congenital type. Since about half of the polyps may be considered to be of the congenital type (Pfeiffer and Patterson⁵) it becomes obvious that congenital polyps have a very serious significance and should be diagnosed and treated early.

As Slaughter⁶ has stated, polyps can produce almost any type of colonic or rectal symptoms. Attacks of mild diarrhea with mucus and blood are not uncommon. Occasionally, bleeding is quite severe and may actually result in anemia. Tenesmus is common, as is also urgency. Since most of the polyps are multiple, sigmoidoscopic examination will be very helpful in establishing the diagnosis.

Treatment varies considerably depending upon the location of the polyp and the age of the patient. In the solitary type observed in the rectum of children, local excision is usually curative. In the congenital type where multiple polyps are so common, prophylactic excision of the involved area is usually indicated even though the patient is no older than 30 to 35 years. Under such circumstances, the lesion is removed to prevent development of carcinoma, which some authors have stated will develop in every case (of the congenital type) if the patient lives long enough. The ideal plan is to remove all of the polyps from the rectum by fulguration, excise the colon and anastomose the ileum to the sigmoid. Even though all of the polyps can be removed, it will be necessary to observe the patient every few months for recurrence of polyps or development of a malignant lesion in the rectum and remaining sigmoid.

Preoperative Treatment.—As in all lesions where nutritional imbalance is so apt to develop, preoperative treatment is exceedingly important. In addition to the routine examination, various data in blood chemistry including blood proteins, etc., must be obtained. So commonly the patient begins to cut down on his caloric and fluid intake with the result that he loses his nutritional fluid balance as well as his electrolytic balance. This decrease in intake takes place so gradually that the patient may not realize he is starving himself. Moreover, the physician may not obtain the correct interpretation of the nutritional status unless he inquires specifically regarding the amount of food and quantity consumed during the past several days.

TABLE 1
AXIOMS IN COLON SURGERY

1. Imbalances such as Anemia, Hypoproteinemia, Malnutrition, etc., Must be Corrected Before Resection is Performed.
2. Chief Cause of Peritonitis is Leakage, not Soilage.
3. Intestinal Decompression not Effective in Obstruction of Colon.
4. Complete Obstruction Usually Requires Immediate Operation, i.e., Colostomy with Resection Later; Obstructive Resection Permissible in Partial Obstruction.
5. Loop Colostomy Preferable to Tube Colostomy.
6. Since Introduction of Sulfasuxidine and Sulfathalidine Open Anastomosis may be considered safe.
7. Aged Patients do not Tolerate Resection as well as younger Patients, and therefore need better preoperative care.
8. Mortality Improves with Perfection of a Method.
9. Sulfonamides and Penicillin are not Substitutes for Sound Surgery.
10. No one Operative Procedure is Applicable to All Cases.

Obviously, weight loss will give the physician a lead as to the state of nutrition, but a ten pound weight loss of acute origin may be of more significance from the standpoint of operability than a thirty pound weight loss over a long period of time.

Ordinarily no more than a few days should be consumed in this preoperative therapy, since the carcinoma is slowly growing and the time soon comes when it will metastasize beyond the lines of resection. The proper choice of soft foods having a high caloric value will be very helpful in improving the nutritional status. If the patient has no obstruction, he will be able to take enough food by mouth to improve his condition, particularly if the physician supplements the oral intake with perhaps 1000 to 1500 cc. of 10 per cent glucose or 5 per cent amino acids with 5 per cent glucose. In other words, if the patient is able to take one-half to two-thirds of a normal diet and can be given 1500 to 2000 cc. of glucose and amino acids, the caloric intake may be brought up to a level where his operability is gradually improving. It will probably be impossible to regain all, or even a great portion of the loss weight, but it may cause the negative nitrogen balance to be changed to a positive one, which is exceedingly important in preoperative treatment.

Most of these patients will be anemic and many will have hypoproteinemia, therefore two



Figure 2. Plain x-ray film of abdomen of a patient who had not passed gas or had a bowel movement for 3 days. Note the haustral gas shadows indicating obstruction of the colon.



Figure 3. Barium enema of same patient as in Figure 2. The barium column is completely blocked in the distal portion of the descending colon. Diagnosis of carcinoma was made.

to five transfusions may be necessary to bring the blood picture back to near normal.

If in doubt about the degree of obstruction present, insertion of a tube into the stomach measuring the residue five to eight hours after a meal may yield reliable information. However, intestinal decompression even with a Miller-Abbott tube extending into the ileum is rarely of much benefit in relieving obstruction produced by a malignant lesion. If the obstruction is complete an emergency operation may be indicated, as discussed later.

I, personally am convinced that the oral use of succinyl-sulfathiazole or sulfathalidine for three or four days preceding operation will improve the mortality rate because of the decrease of *E. coli* in the stool. The dose of the two drugs is 12 and 6 grams per day, respectively. Since neither drug is absorbed from the intestinal tract to any significant degree, toxic reactions are very rare.

Operative Treatment.—Various different types of operation are available for the excision of tumors of the colon. No single one can be applied to all the lesions encountered. However, it is not essential to utilize all of the important

methods described in the literature. Ordinarily, the use of four or five methods should allow the surgeon to take care of almost any problem in carcinoma of the colon. However, it is true that resection of the colon does require more than average skill on the part of the surgeon. The experience of the surgeon is definitely reflected in the mortality rate.

Unfortunately, carcinoma of the colon manifests itself so late that many lesions have progressed beyond operability before they are seen by the physician. However, the rate of resectability is much higher in carcinoma of the colon than in carcinoma of the stomach. For example, Collier and Vaughan⁷ reported resectability in 83.3 per cent in 173 cases studied. However, of the entire group of 173 patients only 64.7 per cent could be classified as curable since many lesions were resected even though metastases were present. Allen⁸ noted an operability of 91 per cent. Zininger and Hoxworth⁹ called attention to the fact that the percentage of operability is much higher in private patients than in charity patients. For example in their series they noted an operability of 52 per cent in their charity patients in Cincinnati General Hospital.

compared to an operability of 90 per cent in their private patients.

There are certain principles of technic which must be borne in mind at all times. For example, the blood supply of the colon is not as profuse as that of the small intestine, and must, therefore, be preserved carefully in the neighborhood of the suture line to minimize the danger of necrosis and leakage at this point. Moreover, the surgeon must be certain that no tension exists on the suture line. Obviously, the surgeon must examine the lesion and adjacent nodes very carefully before resecting a lesion with the intention of performing an end-to-end anastomosis lest it be impossible to bring the two ends together without tension or destruction of key arteries. Ordinarily, the peritoneal cavity will tolerate contamination incident to a resection of the bowel very well, but it must be emphasized that continuous leakage is not tolerated and will invariably result in local abscess or general peritonitis and death. Application of the sutures must be made with extreme care. If they are tied too tightly they may cut through and result in leakage, particularly if they are taken very deeply. If the sutures are loose, leakage may take place between them. Serious effects may result if the bite of the suture is taken too deeply, or is too shallow. The use of small atraumatic needles and interrupted non-absorbable sutures for the outside layer has unquestionably reduced the mortality rate during the past several years. Either cotton or silk may be utilized for this purpose, but the author prefers the former.

It must be remembered that when obstruction is present resection with primary anastomosis cannot be done with safety. The presence of significant obstruction demands that some type of two-stage operation be performed.

There is considerable discussion at the present time as to the value of the one and two-stage operations. Although there is a distinct trend toward the use of a single operation in preference to a two-stage operation, yet there are many surgeons who utilize stage operations in various types of lesions. In general, stage operations should at least be considered if the patient is a very poor risk, if there is much edema and inflammation about the tumor, or if obstruction is extensive. On the contrary, one-stage opera-

tion should be considered when the patient is a fairly good risk and the lesion is readily resectable without having to utilize edematous bowel in the anastomosis. The indications for these various types of operations will be discussed later.

Errors in technic might be summarized as follows: (1) tension on the suture line; (2) inadequate blood supply; (3) improper attention to suture material and needles; (4) sutures taken too deeply, too superficially, too loosely, or too tightly.

Treatment in the Presence of Complete Obstruction.—When the obstruction in the sigmoid or transverse colon is complete there will be marked distention, but vomiting is frequently minimal or even absent. Decompression by a stomach or Miller Abbott tube, for carcinoma of the large bowel is entirely unsatisfactory, largely because it is impossible to decompress across the ileocecal valve. However, a tube should be passed into the stomach to decompress the stomach and upper jejunum. Since the distention of the cecum proximal to the point of obstruction becomes very pronounced, and since perforation occasionally occurs in this area, emergency operation is usually indicated. It is desirable to decompress the cecum by operation before perforation occurs, because the mortality rate following operation for perforation is remarkably high even though a relatively short time may elapse between perforation and the operative correction. A small incision is made over the ascending colon or the right transverse colon, and a small loop brought out for the colostomy. No attempt should be made to examine the abdomen for the site of obstruction or for metastases, largely because an incision large enough to allow exploration will result in evisceration and great difficulty in closing the wound. The author prefers a loop colostomy over a tube colostomy. By bringing out a loop and placing a glass rod through the mesocolon at the mesenteric border all of the fecal content are diverted from the bowel between the colostomy and the site of obstruction. It is usually wise to insert a catheter into the proximal loop of colon through a purse-string suture to obtain immediate decompression. If this tube is inserted after the operation is completed, the amount of contamination is rarely sufficient to

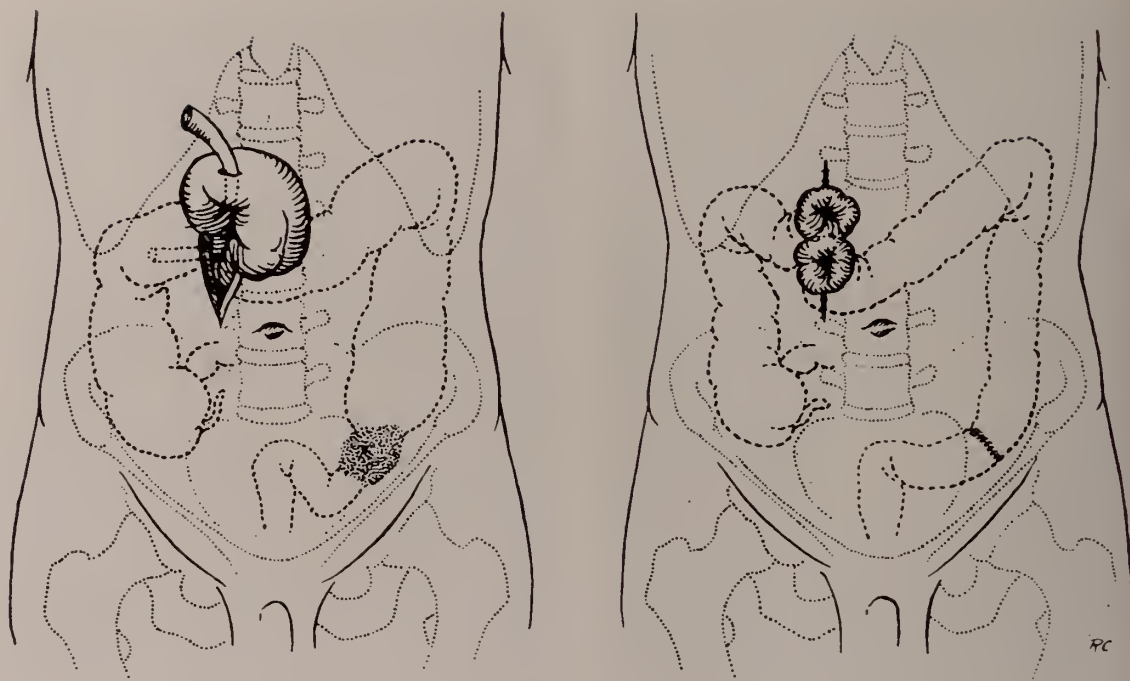


Figure 4. When obstruction is complete, resection must not be performed as a two-stage procedure; a colostomy is performed (illustration on the left) as the first operation, solely to relieve obstruction. After the patient has recovered, the tumor is resected (as shown on the

right) and the colostomy closed later by the spur crushing procedure illustrated in Figure 6. Its adaptability lies chiefly in carcinomas of the transverse or left colon. (After Cole in Rocky Mountain Med. Journ. 1945.)

cause any trouble, particularly if the wound is protected with several thicknesses of dry gauze covered by vaseline gauze. Following operative decompression of this type, the patient recovers remarkably well on most occasions. He rapidly begins to eat and take fluids, and regains health and lost weight. By the time all edema has disappeared from the colostomy, the patient may be prepared for laparotomy and resection of the carcinoma, if that is the lesion producing the obstruction. Before beginning this second operation, the diagnosis must be confirmed by barium enema. If a carcinoma is present it will be found by x-ray, and the obstruction will probably still remain complete. If the obstruction was caused by adhesions, or an inflammatory mass such as a diverticulum, the obstruction may be relieved at least partially, and the roentgenologist may be able to eliminate carcinoma as the diagnosis.

Cecum and Ascending Colon.—Three different types of operation are performed for tumors in this area. (1) *Resection* of the cecum and as-

cending colon with *primary anastomosis* of the ileum to the right transverse colon is performed by many surgeons including Jones,¹⁰ Zininger and Hoxworth,⁹ Bell and Henley¹¹ and many others, (see Figure 5). The author prefers this method of resection for tumors on the right side when the patient is a good operative risk and when the inflammation about the tumor is relatively mild. The entire right colon is mobilized along with the hepatic flexure and the area excised including the ileocecal valve. The method of suturing the ileum to the transverse colon varies with different surgeons. The author prefers an end-to-side, as illustrated in Figure 5, although an end-to-end anastomosis is done by many surgeons. Gastrointestinal decompression must be maintained for two or three days to protect the suture line from tension. A Miller-Abbott tube is probably preferable for this decompression, but the author has had such good result with gastric decompression that he uses it instead of the Miller-Abbott tube. With the aid of succinyl-sulfathiazole or sulfathalidine and

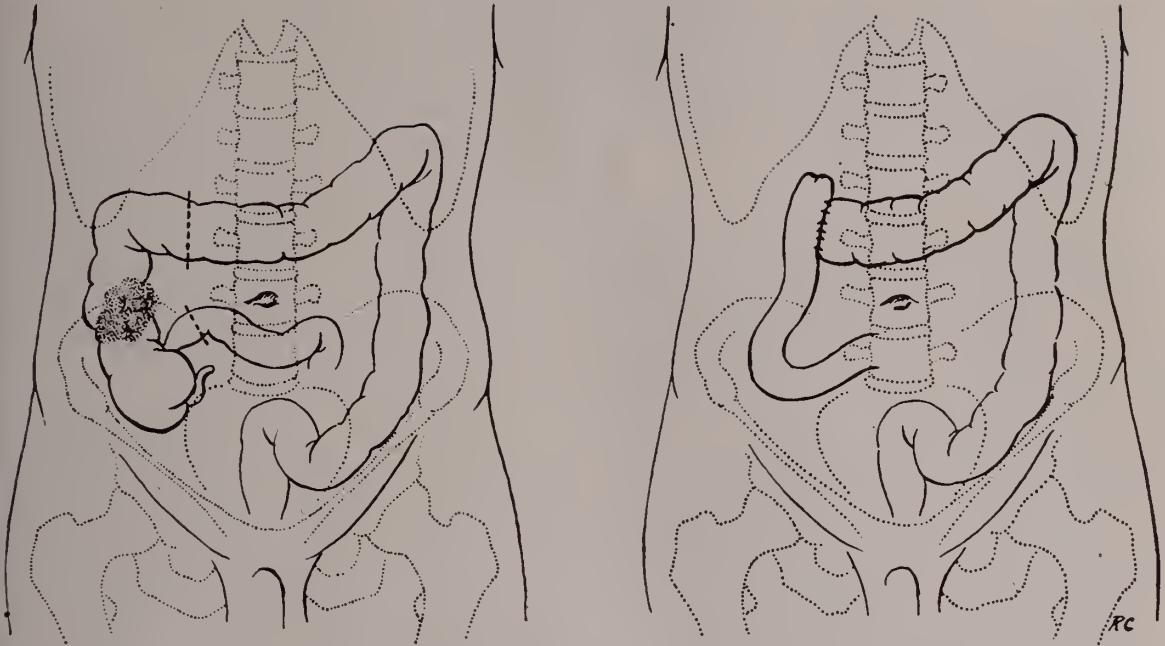


Figure 5. Resection with primary anastomosis in one stage is becoming more popular since the use of succinyl-sulfathiazole, sulfathalidine and penicillin. It

is particularly adaptable to the right and transverse colon. (After Cole in Rocky Mountain Med. Journ. 1945.)

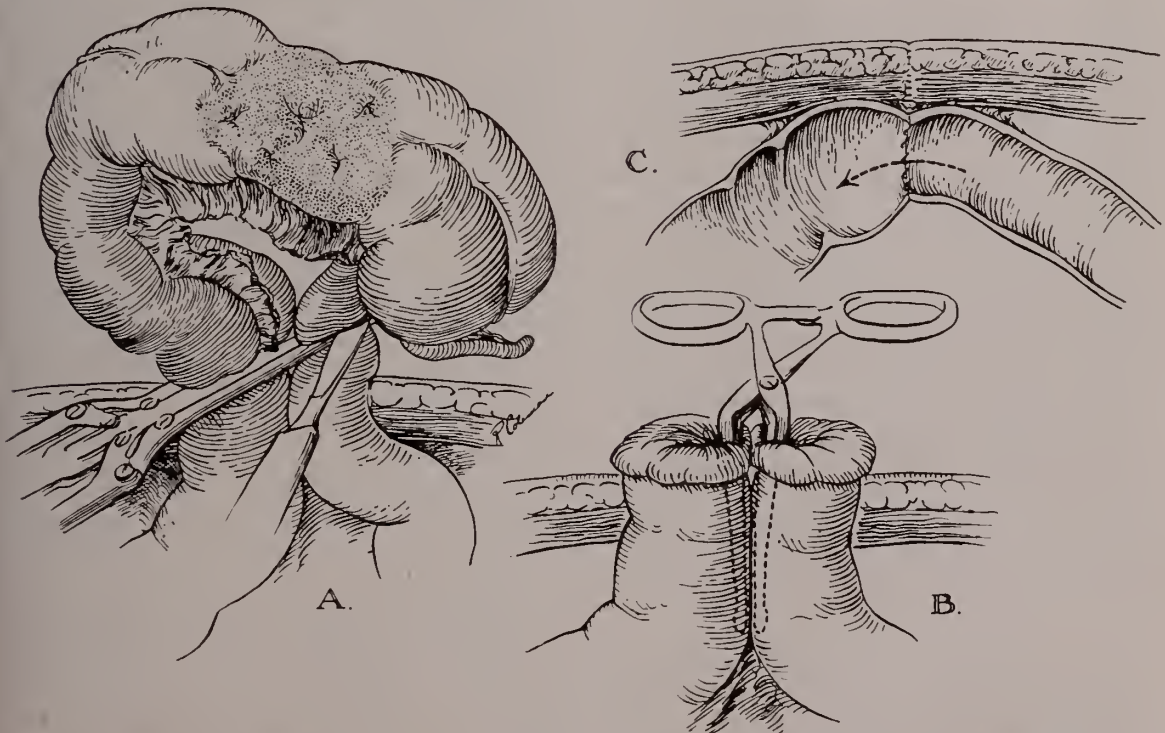


Figure 6. The Mikulicz resection illustrated above is a stage operation particularly useful in patients who are poor risks, or have obstruction. At the end of the operation the mass is excised with the cautery as in A.

About two weeks later the spur is crushed (B), and several days later the colostomy is closed (C). (After Cole in Rocky Mountain Med. J. 1945.)

penicillin, it appears that the one stage procedure is justifiable in the treatment of lesions on this side. However, Collier and Vaughan⁷ prefer a two stage procedure for lesions of the right colon; they perform an ileotransverse colostomy at the first stage.

(2) An *obstructive resection* of the type recommended years ago by Lahey¹² and Rankin¹³ is performed by many surgeons, and appears to be a very desirable operation in the presence of poor operability or inflamed bowel surrounding the carcinoma. In this operation, the entire right colon, including the hepatic flexure along with the terminal ileum is mobilized and brought out through the wound. This mobilization allows very radical resection including the nodes in the mesentery. The two loops of bowel are brought out close together and anchored adjacent to each other with interrupted sutures taken between fat tags and mesentery but not through the wall of the bowel itself. After completion of the operation and closure of the wound, the mass including the tumor is removed with a cautery and the two loops held in approximation with a Rankin clamp, or its equivalent (see Figure 6). After 24 or 48 hours a rubber catheter can be anchored into the ileum by means of a purse-string suture to eliminate the obstruction. After the wound has healed and the edema in the intestinal wall has subsided (usually requiring 10 to 15 days), the spur is crushed preliminary to closure of the colostomy. After crushing the spur a few days are allowed to elapse to permit the edema to subside and the openings in the bowel are then closed. Frequently this closure can be accomplished without breaking into the peritoneal cavity, but with modern chemotherapy no fear from contamination need exist so long as the suture line does not leak. Many surgeons are now closing colostomies by end-to-end anastomosis rather than by the spur crushing procedure. This will save many days of hospitalization, but obviously requires more skill in the repair.

(3) A *two-stage resection* was devised several years ago by Rankin to eliminate the danger of peritonitis following primary resection. It consisted of performance of an *ileotransverse colostomy* as a first stage, to be followed in three to six weeks by resection of the tumor. The obvious

disadvantage of this procedure is that the tumor is left *in situ* for a few additional weeks until the second operation. In spite of this disadvantage the recent fine results reported by Collier and Vaughan⁷ with a technic similar to the one mentioned, makes it impossible to exclude this procedure from those to be utilized in carcinoma of the right colon. They report a mortality rate of only 2.5 per cent in 40 colectomies done by the two-stage procedure for lesions on the right side. They offer this as being safer than the one-stage operation.

Transverse Colon.—For resection of tumors in the transverse colon two or three types of operations are available. Lahey advocates the radical Mikulicz procedure. However, it is obvious that there may be occasions when the tumor is so extensive that resection would not allow mobilization of sufficient colon to bring the loops out as a colostomy. Under such circumstances, resection with a primary end-to-end anastomosis would appear to be the procedure of choice, although some type of colostomy in the ascending colon should be preformed proximal to the resected areas. Jones¹⁰ performs a tube cecostomy after primary resections of this type. A tube cecostomy would appear safe, and preferable over a loop colostomy now that we have succinyl-sulfathiazole, penicillin and other chemotherapeutic agents available.

Descending Colon.—Carcinoma in this area is readily resectable by the radical Mikulicz or obstructive technic, since there is usually a large amount of redundant bowel in this area. Lahey and Sanderson,¹⁴ Jones,¹⁰ the author, and others utilize this procedure to a great extent for lesions in this area. This operation can be performed safely even though obstruction is quite significant. If considerable distention is present at the time of operation, a large catheter can be inserted into the proximal loop through a purse-string suture. Contamination is minimal, and with proper care wound infection should be rare.

Carcinomas in the lower sigmoid just above the peritoneal reflection constitute a problem in the choice of procedure. Many surgeons still perform a Miles operation for these tumors. However, a local operation with preservation of the sphincter may be advisable, and should be adopted when it appears that complete excision of the mesentery of the sigmoid can be accom-

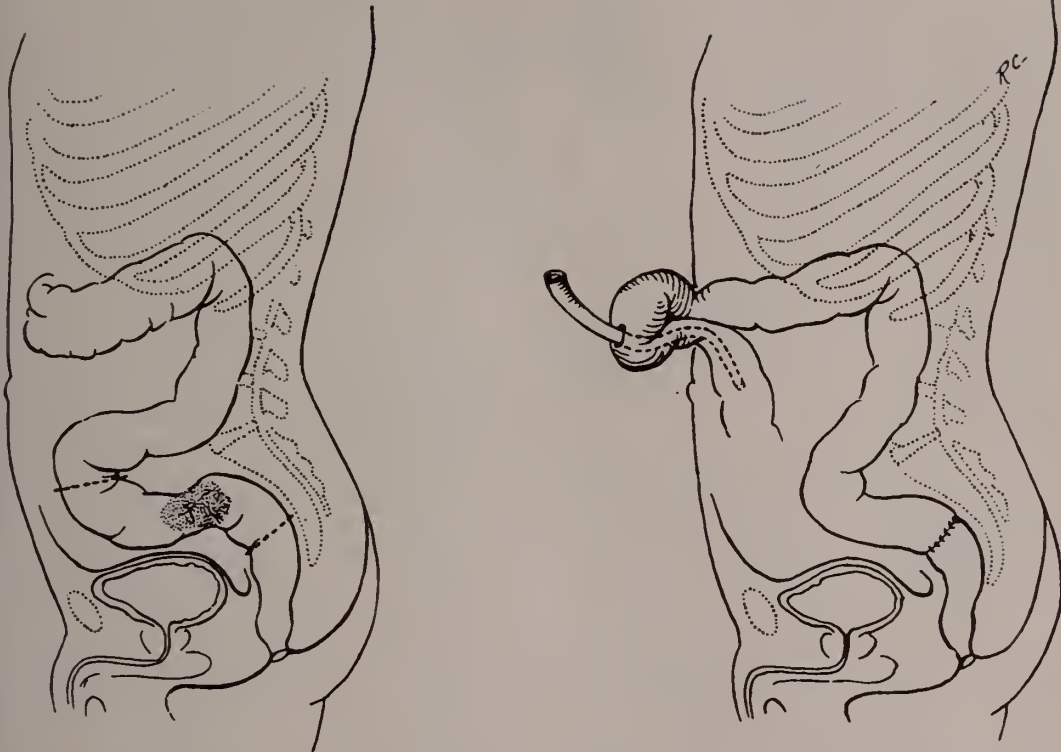


Figure 7. When the tumor is located only a few inches above the peritoneal reflection the anterior resection method as popularized by Dixon is usually very adaptable. After completion of the resection and

anastomosis some type of decompression must be instituted. Dixon recommends a loop colostomy in the transverse colon. (After Cole in Rocky Mountain Med. Journ. 1945.)

plished. By isolating the rectosigmoid and pulling it upward, it is usually possible to approximate and two ends of the sigmoid and suture them in place without tension. This procedure has been performed by Dixon¹⁵ for many years (see Figure 7). He recommends performance of a loop colostomy in the transverse colon at the completion of the operation to decompress the bowel and protect the suture line. Other surgeons insert a large catheter through the rectum and thread it beyond the line of anastomosis after the suture lines are completed.

Operative Mortality and Result.—The mortality rate following resection varies somewhat in different clinics, depending upon the technics used, the type of patients, etc. Jones¹⁰ reports a mortality rate of 13 per cent for lesions in the right colon, utilizing resection and primary anastomosis as a one-stage procedure. With similar technic, Allen⁸ reports a mortality rate of 20.5 per cent in 73 cases of carcinoma throughout the colon, but a mortality rate of only 11 per cent in 18 cases performed by a two-stage method. In a more recent article

he reports a very low figure for patients operated on since his previous report. In a recent report, Collier and Vaughan⁷ report a mortality rate of 4.1 per cent in 145 cases of carcinoma of the colon. Mayo and Simpson¹⁶ reported a mortality rate of 11.1 per cent with a one-stage procedure in the transverse colon, compared to a little over 20 per cent in 95 cases treated by a radical Mikulicz procedure. Jones reports a mortality rate of 20 per cent in 24 cases of carcinoma of the splenic flexure; in 77 patients with a lesion on the right side, his mortality rate was 6.5 per cent, utilizing the radical Mikulicz procedure. This rate is quite comparable with a mortality of 7.2 per cent in 600 cases of rectal carcinoma also reported by Jones. Stone and McLanahan¹⁷ reported a mortality of 14.4 per cent in 97 patients with carcinoma of the right colon as compared with 13.0 per cent in 69 patients with carcinoma of the rectum. Their mortality rate for lesions in the right colon, transverse colon and left colon was 14.2 per cent, 7.1 per cent and 16.1 per cent respectively. They utilized the one-stage procedure in lesions of the left colon. As stated previously, the mortality

TABLE 2
FACTORS RESPONSIBLE FOR IMPROVEMENT
IN MORTALITY RATE IN COLON SURGERY

1. Correction of Malnutrition (Food, I.V. Glucose and Amino Acids).
2. Correction of Hypoproteinemia.
3. Liberal Use of Blood and Plasma.
4. Improved Knowledge of Fluid and Electrolytic Needs.
5. Careful Surgery.
 - (a) Use of Cotton or Silk on Outside Layer.
 - (b) Accurate Placement of Sutures; Fine Needles.
 - (c) Preservation of Adequate Blood Supply at Suture Line.
 - (d) No Tension on Suture Line.
6. Use of Intestinal Decompression.
7. Penicillin and Sulfonamide Therapy including Succinyl-Sulfathiazole and Sulfathalidine.
8. Patient Seeks Medical Aid Earlier.
9. Earlier Recognition of the Lesion.

rate of resection of carcinoma of the colon is affected by experience of the surgeon as is shown by a mortality rate of 18 per cent in 100 cases of carcinoma of the lower sigmoid (1938) removed by Dixon by the anterior resection technic as compared to a mortality rate of 4.8 per cent in 81 cases encountered since 1938. In a previous publication, we reported a mortality rate of 10 per cent in 50 consecutive cases of carcinoma of the colon. Three or four different types of operation were utilized in this series but we were unable to determine whether or not the mortality rate was influenced by the type of operation. Of the 5 deaths, one was caused by pneumonia in a man 80 years old. Peritonitis was the cause of death in three patients; these must be listed as being preventable. One patient, however, died following a massive resection of the colon, stomach and duodenum for far advanced tumor.

In general, surgeons have noted a very pronounced lowering of mortality rate following resection of the colon during the past 5 to 10 years. The low mortality rate recorded by Collier and Vaughan just recently is an example. Our own experiences confirm this improvement during the last 5 to 10 years. In contrast to the 10 per cent mortality rate in our patients from 1936 to 1943, we have a mortality rate of 3 per cent in the last 33 consecutive cases (1944-46).

The 5 and 10 years cure rate in carcinoma of the colon is remarkably good compared to

lesions elsewhere. Lahey and Sanderson reported 57 per cent 5 year cures in carcinoma of the colon as compared to 53 per cent 5 year cures in carcinoma of the rectum. Dixon¹⁸ reports 72 per cent 5 year cures in carcinoma of the right colon, 63 per cent in carcinoma of the descending colon, but "for the sigmoid and rectum the prospect for a 5 year cure is from 44 to 53 per cent."

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DISCUSSION

QUESTION: I want to ask something about the telescoping of the large bowel on the left side.

Dr. Arkell Vaughn, Chicago: I would like to have Dr. Cole say something about cecostomy.

Dr. Warren H. Cole, Chicago: (in closing): The telescoping operation for carcinoma of the descending colon was quite popular about twenty years ago or more. It was first done by Balfour. The proximal portion of the bowel is larger than the distal, which

makes it difficult to get the telescoping accomplished without obstruction. That is the chief drawback to the procedure. I prefer an end-to-end anastomosis. You will get less complications with that procedure, I believe.

Dr. Vaughn has asked about cecostomy: I prefer a loop colostomy bringing the loop of the bowel outside the abdomen. If desired, a tube can be inserted into the proximal loop immediately; application of a purse string suture reduces contamination to a minimal degree. If you do a cecostomy and do not bring the bowel out, the fecal stream still goes past the point of decompression and you may get impaction proximal to the obstruction. If the lesion is in the right transverse colon you do not expect impaction to develop but I have seen that happen with lesions on the left side; once I had to do another colostomy after two weeks of irrigations to get rid of an impaction. When you encounter such complications, even though rare, I think the loop colostomy will seem safer to you.

THE CONTRIBUTIONS OF UROLOGY TO THE PUBLIC HEALTH

HERMAN L. KRETSCHMER, M.D., Sc.D.
CHICAGO

It is a great honor and a privilege to participate in the dedication of the Hoffberger Urological Research Laboratory. I accepted the invitation of Dr. Goldstein with great humility.

The dedication of this Institute is a great tribute to the confidence of the donor in the medical profession. He indicates that he has great faith in the future of medicine and in the medical profession. This has special significance today, when powerful currents of uneasiness and restlessness are sweeping through this postwar period. The record achieved by medicine is a glorious record of which all men are justly proud, and the people have always had great faith in the medical profession. I say this in spite of the fact that certain groups in this country are trying to confuse our people by agitation, and members of such are chiefly interested in changing the present-day private practice of medicine by substituting for it some type of regimentation of both patient and physician.

Thus, medicine today finds itself assailed by disparagement and contumely from various groups. One of the allegations is that physicians are not interested in public health or in the

prevention of disease, but only in private practice for fees. No statement could be further from the truth.

Many who today for ulterior purposes belittle the physician and his accomplishments also deride our code of ethics as being antiquated and out of date. Actually, the ethics of the medical profession constitute one of the greatest contributions to human society, and one may say that they are as fine as any developed by men in any branch of human relationships, including even religion. Ever since the time of Hippocrates the physician in his relationship to his patient has been guided by the ethics as established in the Oath of Hippocrates.

He has also been zealous of the welfare of the many whom he may never treat. Let me remind you that at the annual session of the American Medical Association held in Philadelphia in 1872 a strong effort on the part of physicians was well underway to urge the states to establish health departments. The committee in fact reported at that time that progress was being made. Indeed, the American Medical Association was instrumental in preparing and sponsoring the necessary legislation which established the United States Public Health Service, which is recognized today as the finest agency of its type in the world.

Every physician is proud of the marvelous progress of medicine since the turn of the present century. Every person is interested in living as long as he can. One of the outstanding achievements of organized medicine, as far as the individual citizen of this country is concerned, has been the prolongation of human life. In 1900 the average expectancy of life was 42.5 years. A child born today has a life expectancy of 64.2 years. In other words, since the turn of the century, the span of life has been increased twenty-two years. Although this has been most desirable, progress cannot be made in any one field without creating other problems with which to cope.

Hence, the increased span of life has resulted in the production of new social, economic and medical problems. Our population is now an aging one, which means that more people than ever before are in the older age groups. Unfortunately, the children of many of these people are indifferent to the welfare of their parents so

that a new social problem has arisen. Industry, with its high speed of production and consequent heavy physical demands, finds that it cannot give employment to these aging people. Management, then, is faced with the problem of finding employment for these older people in the industrial economy, in order to make them self-sufficient and self-respecting.

From the standpoint of health, the medical profession has its obligation to the older people. That is, the incidence of the degenerative diseases and the number of chronically ill patients, because of our aging population, are on the increase. They are problems which are pressing for solution. Members of the medical profession have given serious consideration to these problems, and a new branch of medical practice, namely geriatrics, has been established.

Many of the diseases that were killing great numbers of our people at the turn of the century have practically disappeared, and the ravages of others, such as typhoid fever, typhus, scarlet fever and diphtheria, have been greatly checked. The treatment of pneumonia and meningitis with the sulfonamide compounds and penicillin has resulted in an enormous and dramatic decrease in both mortality and morbidity rates, as is known to everyone who reads our public prints.

Syphilis and gonorrhea are fast disappearing. It is interesting to reflect that this victory has been accomplished without need for the passing of laws and police regulations. The control and almost complete eradication of these two diseases are due to research which has resulted in new forms of treatment that shorten the course of treatment so that the co-operation of the patient necessary for carrying out the treatment is obtained very willingly and the contagious period is reduced. This is an outstanding instance in which confidence and co-operation between physician and patient have obviated the necessity for harsh laws or stringent regulations.

The incidence of tuberculosis has reached an all-time low, and in another twenty-five years this disease may be almost extinct.

Nutrition has been a subject of extensive research and clinical investigation during the past twenty-five years. As a result of the modern science of nutrition, it can be said without fear of contradiction that our people are the best nourished on earth. Rickets, scurvy and other

deficiency diseases have all but disappeared. On the other hand, our people are still in need of much education in the proper habits of eating. Our habits of eating are notoriously bad.

Never before have we had a better understanding of the problem of cancer. The recent advances in our knowledge of the carcinogenic agents and their actions have been a formidable contribution to the field of cancer research. The educational campaigns of both the public and the profession have resulted in patients seeking treatment at a much earlier period than they formerly did. Consequently, the number of patients who have survived treatment for cancer for five and ten years is ever increasing. As a further aid to the early diagnosis of cancer of the uterus, for instance, the new technic of the vaginal smear has been of great importance.

The intensive study given to the problem of infantile paralysis has given us a better understanding of this disease, and it seems very likely that in the near future it too will come under control.

The extensive knowledge of the internal secretions, based on scientific as well as clinical studies, has led to that branch of medicine known as "endocrinology."

Without medical leadership in solving the problem of industry, from the standpoint of prevention of both industrial accidents and diseases, modern mass production would be impossible. In fact, so widespread is the interest in this subject that the American Medical Association has recently established the *Journal of Industrial Medicine and Surgery*.

The great progress made in the treatment of pernicious anemia and diabetes is among the recent invaluable contributions of medicine to the public welfare. Although we may point with pride to these achievements and many more, much still remains to be done. There is no doubt that those to come will be fully as remarkable as those I have only mentioned.

We are gathered here today to dedicate this new Urological Research Laboratory. Let us therefore turn our attention to the developments in the specific field of urology. This is a branch of medicine in which the achievements have been no less resplendent than those in medicine as a whole. It is difficult for the young man, when he embarks on his training as a urologist, to

realize that there was a time when our armamentarium consisted only of the catheter, sound and, somewhat later, the cystoscope. At the turn of the century the urologist was chiefly concerned with the treatment of venereal diseases, their complications and their sequelae. Gradually, more and more out-patient departments gave opportunity to the urologists to become proficient in the use of the cystoscope. Although urologists at first were limited to the study of the bladder and its diseases, they helped to blaze the trail for modern urology. Nowhere else in the world do the urological patients today receive the high quality of care which they obtain in this country and in Canada.

It is impressive, on this occasion, to review some of the contributions of the urologists of this country. Although the cystoscope was developed by Nitze in Vienna, it remained for the urologists of the United States, aided by the Wapplers, to devise better, smaller and more workable instruments. One of the first adjuncts to the differential diagnosis of stone in the ureter was the development of the shadowgraph catheter by Schmidt and Kolischer of Chicago in 1907.

A memorable advance in the treatment of papillomas of the bladder was made when the late Dr. Edwin Beer of New York devised his method of destruction of such lesions through the cystoscope with the high-frequency current.

Although pyelography, both intravenous and retrograde, was developed in Germany, great impetus to the use of the technic and interpretation of the results was given by Dr. William F. Braasch, who, because of the great wealth of clinical material at his command, played a most important part in the evolution and perfection of the method.

The high degree of efficacy which prostatic surgery has reached today is due largely to the concerted efforts of the urologists of this country. The preparation of the patient by establishment of preliminary drainage, by means of either the catheter or suprapubic cystostomy, the importance of eradication of infection, the improvement of renal function by the administration of large amounts of fluid, and recognition of the need for careful study of renal function before operation, all were developed by the urologists of this country. The importance of the intake of fluid and maintenance of water balance, so

widely accepted and applied in general surgery today, was first demonstrated and then reiterated by the urologists.

The outstanding improvements in the surgery of the prostate gland made by the late Dr. Hugh H. Young of Baltimore, did much to further the treatment of prostatic obstruction.

Now we are in a new era in the treatment of prostatic obstruction, an era in which the use of transurethral resection has resulted in lower mortality and morbidity rates, a shorter period of hospitalization, and in the making of relief possible to an ever-increasing number of patients who, because of co-existing serious disease, previously had to be denied the benefits of major operations.

Many men have developed instruments for the treatment of prostatic obstruction. I cannot mention all of them. Braasch, Bumpus, Caulk and Young are the names of some of the men who devised various types of punches. To Doctors Davis, McCarthy and Stern great credit must be given for their painstaking efforts and their ingenuity in the development of the electro-resectoscope.

The importance of determining renal function before nephrectomy, as well as in the treatment of the prostatic patient, has long been recognized. To Rowntree and Geraghty we owe the phenolsulfonphthalein test. In addition to being the best of renal function available for some years and a test of great value in urological surgery, it proved to be a great stimulus to internists, physiologists and pharmacologists in further study of renal function, and in the development of other methods and other compounds in the study of renal function.

Although the phenolsulfonphthalein test is still of great value, it has been in part superseded by study of the retention of waste products in the blood. These studies were made possible by the development of new technics by Folin of Boston.

The procedure of transplantation of ureters for diversion of the urinary stream in the treatment of various conditions of the bladder, first advocated in Europe, never gained widespread use because of poorly conceived operations. It remained for the urologists of this country to follow quickly the lead of Coffey, whose sound principles gained wide favor for this operation.

The procedure is more widely used in the United States than it is in Europe.

Until recently, pyelitis occurring during pregnancy was a frequent complication, and the mechanism of the condition was not clearly understood. It is now known that dilatation of the renal pelvis, ureters and bladder occurs in almost every pregnant woman.¹ This results in stagnation of urine so that infection may be superimposed easily and the patient may become acutely and often seriously ill. Pyelitis of pregnancy has been shown to be a preventable disease.² Prevention is accomplished by the eradication of distant foci of infection, such as infected teeth and tonsils, infection of the sinuses, attention to the gastro-intestinal tract, and the prevention of intercurrent head colds.

In the development of pediatric urology, the urologists of the United States are the outstanding leaders. Nowhere else in the world has this subject received the intensive and continued interest and study that it has been accorded in this country. These efforts have resulted in the opening of a new field. No longer are urological lesions in children considered to be of rare occurrence. No longer are the thus afflicted children treated on a symptomatic basis. As a result of these studies, many serious conditions are recognized early and the destruction of vital organs is prevented.

The urologists of this country are very proud of the fact that they have three national societies which meet annually for the presentation and discussion of scientific papers, as well as for the presentation of scientific exhibits which show the latest developments in the field of urology. In no other country does a comparable situation exist. I should mention also that the American Urological Association, the American Association of Genito-Urinary Surgeons and the Section of Urology of the American Medical Association have given the urologists of this country a great many opportunities for scientific advancement.

In this country and in Canada, also, the urologists, in order to render better care to the patient and to increase and improve resident training of young men, led the way for the organization of urologic departments in general hospitals. This is a situation which is very rare in England and on the continent, where those concerned have

been very loathe and slow to establish departments of urology in general hospitals.

In 1935 the American Board of Urology was established by the joint efforts of the American Urological Association, the American Association of Genito-Urinary Surgeons and the Section of Urology of the American Medical Association. The primary objectives of this Board are to raise the standards of graduate training in urology, and to make more and better facilities available for young men who wish to follow urology as a career. This has resulted in better urological care for the patient. May I add that the establishment of the Board was an altruistic venture, the need for which was realized by the urologists themselves. A similar program of graduate education does not exist anywhere else in the world.

There has been more growth in scientific and medical knowledge during the last forty years than has occurred since the beginning of time. Science is never static and the practice and science of medicine are never static. Science and medicine are always on the march. Many problems have been solved; many more remain to be solved.

Now we come to a new milestone in urology. We are here today to dedicate the Hoffberger Urological Research Laboratory, which will make it possible to add still further to our knowledge of disease, to find the solutions to the many as yet unsolved problems, and to make opportunities for young men to engage in scientific endeavors.

Medicine and medical research have passed through certain phases. These phases or periods may be briefly mentioned as the anatomical, physiological, pathological, bacteriological, and clinical. Today, research and clinical investigations are based on experimental physiology, experimental pathology and biochemistry, all of which have assumed an important role in research. The trend in research is always upward. On an occasion such as this, we may point with warranted pride to the great accomplishments of medicine and urology, being mindful of the fact that much still remains to be done.

As we stand in admiration of this beautiful building and its wonderful equipment, we should not forget that it is not the bricks and mortar that constitute the important thing. The im-

portant thing is the men who work within the walls of this Laboratory. No institution, be it a medical school, hospital or research institute, can possibly be greater than the men on the faculty or the staff. Those who will work and dwell within these halls have a serious obligation. Their vision and imagination and their persistence coupled with a large measure of hard work, are factors which will result in scientific contributions and the finding of the solutions to the many unknown problems of today and those of the future. The opportunities offered to the young men by this Urological Research Laboratory are without limit.

Young men should be grateful for the opportunities presented by this Urological Research Laboratory for the devotion of their efforts to scientific research. The results of their work will lead to the relief of suffering, prolongation of life, the prevention of disease and, it is to be hoped, the discovery of the causes of some of our unknown disease processes.

The spirit which I hope will imbue the young men who will work within the walls of this glorious research laboratory can be illustrated by the words of Mr. Sam Uhlman.

YOUTH

Youth is not a time of life, it is a stage of mind, a quality of the imagination, a vigor of the emotions. Nobody grows old by living a number of years. People grow old only by deserting their ideals. Whether 70 or 16, there is in every being's heart the love of wonder, the sweet amazement of the stars and the star-like things and thoughts, the unfailing child-like appetite for what next. You are as young as your faith, as old as your doubt, as young as your self-confidence, as old as your fear, as young as your hope, as old as your despair. So long as your heart receives messages of beauty, cheer, courage, grandeur and power from the earth, from man and from the infinite, so long are you young.

This is the spirit that should guide the young men who are to shape the destiny of this Urological Research Laboratory. It is this spirit which must dominate, so that the high quality of scientific contributions emanating from it will justify the donor's beneficence in establishing this Laboratory. May we hope that this Laboratory will act as a stimulus for the establishment of similar institutions and that it will set the pace of scientific studies in other institutes, hospitals and medical schools.

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CATARACT EXTRACTION BY THE VACUUM METHOD

OSCAR B. NUGENT, M.D., F.A.C.S., F.I.C.S.

CHICAGO

The purpose of this paper is to describe the changes in the vacuum method of cataract extraction since its beginning and to give the author's experiences in the various stages of its changes and development up to its present status. Further, to tabulate the results obtainable by the vacuum method in its present state of development.

Most any technic used and described by various operators for intracapsular extraction such as preliminary preparation, anesthesia, akinesia, fixation¹, incision², type of suture for closing the wound and after care can be employed with the vacuum method of extraction. The only difference lies in the instrument used for grasping the lens and its manipulation in delivering the lens.

According to the literature and personal experiences, the author feels justified in making the following observations.

1. The controversy^{3,4} between the extracapsular and the intracapsular method of cataract extraction has been decided by the majority of surgeons in favor of the intracapsular method. Jackson⁵ said, "The ideal operation for extraction of cataract must be one that inflicts the least possible damage on the structure upon which ocular function is wholly dependent."

2. The largest percentage of surgeons doing the intracapsular operation use the capsule forceps for extracting the lens. Kirby⁶ thinks it is because of the complicated nature of the apparatus necessary for the vacuum method.

3. The one difference between the results obtained by employing the capsule forcep method

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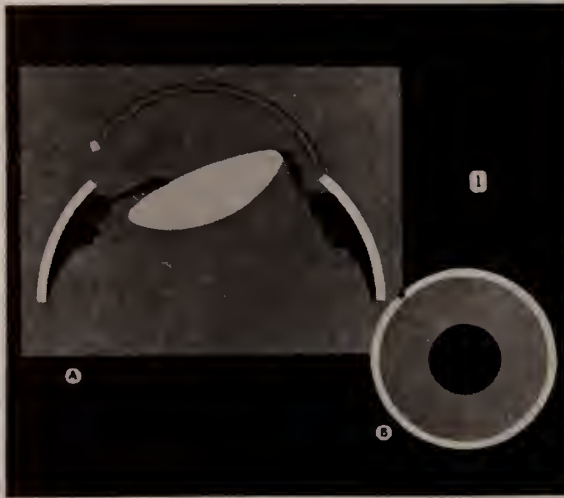


Figure 1. — (a) Lens being delivered by the tumbling method as used by Barraquer. (b) The resulting pupil.



Figure 2. — (a) The method of delivering the lens in the upright position by sliding it through the coloboma in the iris, the result of an iridectomy. (b) The resulting pupil.

of extraction and the vacuum method is the larger number of broken capsules resulting from the former method. McArevey⁷ reported 33% of broken capsules by the use of the forceps in a series of one hundred cases. (Compare this with the number of broken capsules in the series of cases reported in Table 1, page 247).

4. Regardless of the method used for intracapsular extraction, there is a high percentage of postoperative hemorrhages in the anterior chamber. DeVoe⁸ reported 20% in 453 consecutive cases. He believes there is very little that can be done to prevent the complications.

5. Intracapsular extraction inflicts little or no injury to the ciliary body. The author has made microscopical examinations of a number of lens capsules after extraction and found that the zonula fibers usually tear at their junction or insertion into the lens capsule. Gandolfi⁹ and others have made the same observation.

6. Wound rupture with incarceration or prolapse of the iris or vitreous or both is a postoperative complication which seems to defy every method of wound suturing yet devised. Gradle and Sugar¹⁰ concluded that "wound rupture after cataract extraction is due to increased interocular pressure due to forcible contraction of the orbicularis and/or the recti and oblique muscles." A similar observation¹¹ was made by the author in a paper read before this society seventeen years ago.

7. A surgeon with experience supported by a team¹² of well trained assistants and nurses who thoroughly understand his technic and methods, can secure the highest percentage of good operative results provided there is thorough and complete anesthesia, good akinesia and a well selected method of wound suture.

THE AUTHOR'S EXPERIENCE WITH THE VACUUM METHOD

Since Barraquer first perfected and described his method of cataract extraction by the use of the vacuum cup, much interest in it has been taken by many ophthalmologists the world over and more especially by the ophthalmologists of the Spanish speaking nations. Much credit is due to Dr. Barraquer for his early research in the development of his technic and instruments. The author became interested in the Barraquer operation in 1921 and used it for the following five years in selected cases. But after observing Barraquer and Elschvig operate in 1926 and after performing one hundred and sixty Barraquer operations in India in 1927, he used it almost exclusive of other methods for the next eighteen months. In the later part of 1928, the author began to devise different instruments and to modify the Barraquer method.

First Method. The method used was to tumble (Figure 1) the lens and deliver it through the dilated pupil, in case the pupil was dilated sufficiently.

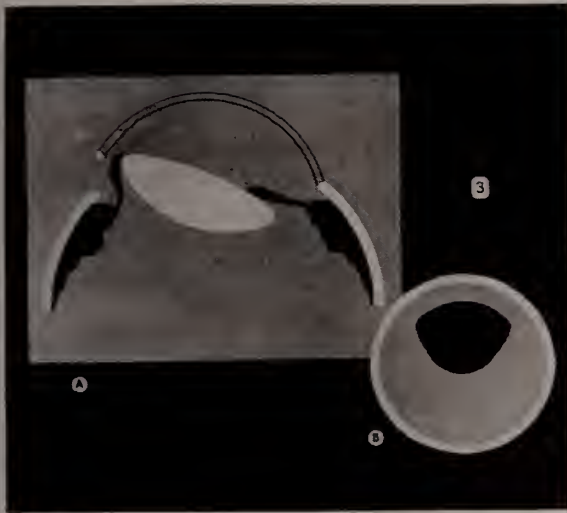


Figure 3. — (a) Illustrating the delivery of the lens in the upright position without iridectomy. (b) The resulting pupil.

Second Method. If, however, the pupil was too small, a full iridectomy was performed and the lens delivered upright through the iris coloboma (Figure 2).

While the incident of the broken capsules has never been high with the vacuum method, it became apparent that fewer capsules were broken by (second method) delivering the lens through the coloboma in the iris following a full iridectomy (Figure 2) than were broken when the lens was tumbled and delivered through the dilated pupil (Figure 1) without iridectomy. (First Method). Therefore, the second method was used more often.

However, even with fewer broken capsules following the use of iridectomy, the resulting coloboma and the irregular shaped pupils left much to be desired. This led to an attempt to seek a technic by which the lens could be delivered through the pupil with fewer broken capsules leaving a postoperative round pupil.

Third Method. The lens was then extracted by pulling it outward towards the incision, without iridectomy, forcibly dilating the sphincter pupilli in the area from 9 to 3 o'clock to allow passage of the lens which was delivered in the upright position without tumbling.

This technic, while it proved to be an easy method of delivering the lens and with fewer broken capsules, had to be abandoned for it was found that the over stretching of the sphincter

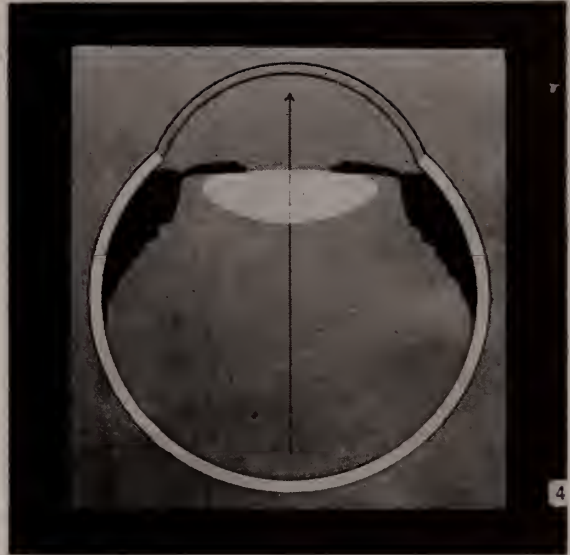


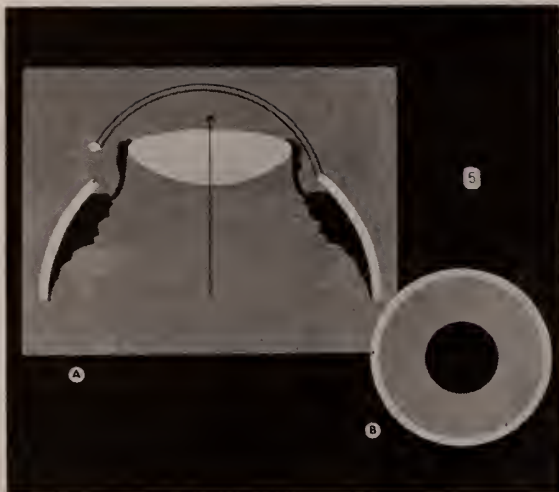
Figure 4. — Cross section of eye illustrating the visual axis and the direction of the lens delivery in the axis traction method.

of the pupil in the upper part probably tore or so injured its fibers that the pupil would not reform and the pupil remained high and eccentric.

The Fourth or Axis Traction Method. It was thought that if the lens could be delivered through the pupil in the upright position in such a manner so as to dilate the pupil equally in its entire circumference, that less injury or no injury would result to its delicate fibers and therefore, a round active pupil would be the result. Experiments following out his line of thought resulted in the following technic.

Preliminary Preparation. After it has been decided by thorough physical examination and laboratory tests that surgery is to be restored to, the patient is placed in the hospital the day before the day selected for operation. A sedative is administered at bedtime to insure against a restless, sleepless night. Next morning at six o'clock, an instillation of a 5% ointment from euphthalmine and cocaine is made in the eye from which the cataract is to be extracted. This is repeated at 7 and 8 o'clock. The patient is given a sedative one half hour before being taken to the operating room.

Immediately proceeding surgery, the face is washed and 10% cocaine solution followed by adrenalin (1-1000) are instilled every 5 minutes for 4 instillations. The retrobulbar injection is



• Figure 5. — (a) Lens being delivered in line of the visual axis in upright position without iridectomy. (b) The resulting pupil.

made and the superior rectus is injected with 2% novocaine. Van Lint's akinesia is performed and the superior rectus suture is placed. Lid sutures are put in looped to one side. The lid retractors are put in place and are held by an assistant. The conjunctival sac is now irrigated with sterile distilled water.

Conjunctival Flap. A conjunctival flap is made, 2½ mm. from the limbus and parallel to it by scissor dissection. This is dissected down to the limbus and extends to within 10 degrees of 9 and 3 o'clock.

Sclerocorneal Sutures. Two corneoscleral silk sutures No. 000000 are now placed on each side, one 40 degrees to the temporal and one 40 degrees to the nasal side of 12 o'clock each as follows. The needle is passed into the cornea near the limbus and brought out just external to and at the base of the conjunctival flap. It is then passed into the sclera 2½ mm. from the limbus and parallel to it, then again entering the cornea at the base of the conjunctival flap and brought out on the surface of the cornea near the limbus. The two strands of the suture between the cornea and scleral insertions are looped and placed to one side in such a manner as to allow for the incision. A third suture is also placed at 12 o'clock and looped as above.

Incision. The Graffe knife is used making the puncture at 10 and the counter puncture at 2 o'clock for the right eye and visé versa for the left eye and cutting out through the sclera between the insertions of the sclerocorneal sutures,

the incision in the sclera is now enlarged to the desired length on each side with scleral scissors.

Iridotomy. A peripheral iridotomy is now made at 12 o'clock at the base of the iris with a DeWacker scissors as described by Professor Elschnig¹³. The peripheal iridotomy is also made at 10 and at 2 o'clock.

Lens Extraction. The vacuum cup is now placed over the lens directly in the center of the dilated pupil. Vacuum is now established (58 cm.) and pressure is made on the sclera just below the limbus at six o'clock with the point of the utility forceps. Traction is now made on the lens with vacuum cup directly in the line of the visual axis and the lens is delivered slowly through the pupil in the upright position. (Figure 5)

Pressure is lessened with the utility forceps as the lens is seen to pass through the pupil.

Closure of the Wound. The cornea is now pulled into proper place by picking up the conjunctival flap with the utility forcep pulling it up towards 12 o'clock. This procedure allows the iris to settle down into proper position away from the wound. The corneoscleral suture is now pulled through by placing the utility forceps on the cornea one blade on either side of the suture to hold it in place. The sutures are tied over the cornea; the conjunctival flap is replaced and secured by a continuous No. 00000 silk suture. Eserine ointment 1% is now instilled into the lower culdisac, and a 5% ointment of sulphadiazine is placed on the wound. The eye is closed; lid suture tied and a double patch placed over both eyes. The operated eye is further covered with a metal shield.

The eye is opened in 24 hours and atropine instilled and the unoperated eye is left unpatched. The patient is allowed to sit up and is given bathroom privileges. The operated eye is left unpatched on the eighth day and the sutures are removed on the thirteenth day and the patient is discharged.

Complications. The use of the above technic has produced more round pupils and fewer complications than any other technic the author has ever employed. Table 1 is a tabulation of the complications at the time of the operation and those following the operation.

Complications at Operation. It will be noted that there were six cases of vitreous loss or three

TABLE 1
Operative and Postoperative Complications
(200 operations)

	No.	Percent.
During Operation		
Vitreous Loss	6	3
Broken Capsule	1	1/2
Postoperative Complications		
Iris Prolapse	14	7
Interocular Inflammation	10	5
Infection	1	1/2

percent and one broken capsule or one-half of one percent.

Postoperative Complications. There were 14 cases of iris prolapse or adhesions, a total of 7%, also, ten cases of postoperative interocular inflammation or a total of 5%. There was one infection or 1/2%. Postoperative hemorrhage in the anterior chamber occurred but is not recorded here as this material is to be used in a subsequent study and report.

Visual Results. No technic devised for cataract extraction should be evaluated by the resultant visual acuity alone although the visual acuity in a large number of cases is a rather fair indicator.

TABLE 2
Visual Results of 200 Cataract Extractions by
the Axis Traction Technic

	No.	Percentage
20/15	31	15 1/2
20/20	64	32
20/25	28	14
20/30	23	11 1/2
20/40	14	7
20/50	14	7
20/65	9	4 1/2
20/100	3	1 1/2
20/200 AND LESS	14	7

A study of Table 2 shows 14 cases which had a visual acuity of 20/200 or less and in those 14 cases according to the records, there were no operative complications but the causal factor for the poor vision was either present before surgery or the result of postoperative complications not at all dependent upon the type of operation employed during the extraction.

All of the visual acuities were not recorded from the author's examination of the patient as

many patients were examined by the ophthalmologist who referred them, some of which were in other cities or towns.

SUMMARY

(1) It is interesting to note that of the 200 patients, 103 were females and 97 were males. The average age for the women was 65 years and for the men, 64.5 years; the oldest was 86 and the youngest 37 years of age.

(2) The incident of rupture of the capsule during extraction is less with the vacuum method than with the forceps.

(3) Rupture of the capsule and vitreous loss has been greatly reduced in the author's experience by the use of the axis traction technic.

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DISCUSSION

Dr. W. W. Gailey, Bloomington: This is a very interesting discussion that Doctor Nugent has offered us. My experience has been modest as compared to his in the matter of extracting cataracts by suction. I have in the past used Green's and Barraquer's apparatus and have resorted to Dimitry's little syringe. However, I still use forceps to extract the cataracts except in those cases in which the capsule is so tense that I cannot grasp it, in which case I use Dimitry's syringe and have found this method to be very satis-

factory. We have had a very low percentage of vitreous loss while using a suction with erisophake. I believe that one reason which keeps many surgeons from using suction is the stories of a few beginners who report that they not only remove the lens but the entire contents of the globe.

I would like to say that if my results on the whole were as good as Doctor Nugent has reported to you, I would be proud of my statistics. I think one of the principle requirements of good surgery is an excellent trained assistant (a clumsy assistant is a hazard to be avoided — he can produce regrettable complications).

I want to thank Dr. Nugent for an excellent presentation. It was certainly well done. I have never tried his method of lifting the lens in the line of vision, but his diagram was convincing and I think it is well worth trying.

Dr. H. L. Ford, Champaign: I would like to ask whether he does a peripheral iridotomy or a peripheral iridectomy.

Dr. O. B. Nugent, Chicago: I want to thank Dr. Gailey and Dr. Ford for their interest. I would like to say that I have used the Demetry suction syringe and it is a very fine instrument. It does the work more satisfactorily than any syringe I know of outside of the pump which was used by Barraquer and Green and myself. The incidence of striate keratitis I have found much less when the lens are extracted in the upright position than when it is tumbled. I do not know why. It does not amount to much and usually disappears in a few days.

In reply to Dr. Ford, I always use iridotomy; I have not used iridectomy in this series.

PROTEIN DEFICIENCY: ITS MANIFESTATIONS, RECOGNITION AND MANAGEMENT

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CHICAGO

Though the need for an adequate intake of protein was recognized even in the last century, the concept of protein deficiency as a factor in disease was not developed until 1917. It was Epstein¹ who first recognized that the persistent albuminuria of nephrosis produced a lowered serum protein concentration and that the latter condition was responsible for the edema seen in these cases. His recommendation of a large intake of protein to combat this loss was probably the first therapeutic use of high protein diets.

Even Epstein at this time probably had no real understanding of the relation of hypopro-

teinemia to generalized protein deficiency. Nor did he visualize the production of hypoproteinemia by other mechanisms than albuminuria. These relationships became clearer after the study of famine edema in the first World War and after the investigation of Peters² and his co-workers in the twenties. It was not, however, until the late thirties that the role of protein deficiency in the complications of surgery, especially in that of gastro-intestinal tract, was elucidated.

The adult requirements of protein are now well established. When body cells die their proteins are hydrolyzed to amino acids. These could be used over again to make new cells but a portion of them is lost by deamination in the liver and conversion to urea. In addition some amino acids as such are lost in the urine. Because of this relative inefficiency of the body economy, the adult must replace the lost protein "building stones" by an adequate intake of protein. He can synthesize a number of these amino acids if enough of nitrogenous compounds are supplied. But at least eight (and possibly ten) amino acids, the so-called essential amino acids, must be furnished preformed, for the animal organism has no mechanisms for their synthesis. In normal individuals, a diet containing 1 gram of protein per kilogram of body weight is more than adequate to meet the daily requirements, especially if half or more is made up of the so-called biologically valuable proteins, namely, — those from milk, egg, meat, fish, poultry and cheese. The proteins of these foods contain all the essential amino acids in adequate proportions. Nitrogen equilibrium can be achieved with much less than 1 gram per kilo if the caloric requirements are met by a large intake of carbohydrate and fat. On the other hand, when the diet is calorically insufficient, an intake of even more than 1 gram of protein per kilo may still produce a negative nitrogen balance, since a good portion of the protein must be utilized as a course of energy.

Protein deficiency occurs under many circumstances most of which should be obvious but which are often lost sight of in the clinical evaluation of the patient's condition. Among the important mechanisms for protein deficiency are the following:

1. Decreased dietary intake of protein, as in

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famine, poverty, voluntary dietary restrictions, obstructive lesions of gastro-intestinal tract, pre- and post-operative starvation, anorexia and persistent vomiting.

2. Decreased absorption of protein, as in carcinoma of the stomach or pancreas or liver, dysentery or other diarrheas, and pancreatic or biliary fistulae.

3. Decreased formation of special proteins, as in diseases of the liver where albumin and fibrinogen are formed, or involvements of the reticulo-endothelial tissues where globulins are said to be produced.

4. Increased loss of proteins, as in the albuminuria of kidney diseases; in burns, in which protein-rich exudates are lost from the surface of the wound; hemorrhage; draining sinuses or abscesses; excessive vomiting or diarrhea; suction drainage; paracenteses abdominis or thoracis, and in breakdown of damaged tissues in the course of infections or neoplasms, or after surgical operations.

5. Increased requirements of protein, as in hyperthyroidism, fever, pregnancy, and leukemia.

Proteins are essential to all protoplasm and are involved both in the maintenance of the structure of the cell and in its function, for the latter is brought about by enzymes which are themselves proteins. Many of the hormones are proteins, others are probably associated with proteins in their action. The blood executes its vital activities by means of proteins: the carriage of oxygen and carbon dioxide by hemoglobin and special enzymes in the red cells; the homeostatic control of the volume of the circulatory blood and that of interstitial fluids through the plasma proteins; blood clotting through thrombin, fibrinogen and other plasma protein factors; the defense against infection by means of antibodies now thought to be gamma globulins. Thus all biological processes depend upon the maintenance of the proper amount of the various individual proteins. Protein deficiency will therefore ultimately manifest itself in a deterioration of all bodily functions and eventually, of course, in death.

Besides these general effects of protein deficiency there are specific clinical findings which can be readily recognized and which have an

important bearing on the associated medical or surgical condition. The most important of these manifestations are:

1. *Peripheral edema.* The volume of interstitial fluid is maintained constant by a balance between the osmotic pressure of the plasma proteins and the hydrostatic pressure of the blood in the capillaries of the body. When the plasma protein concentration is diminished, the quantity of fluid filtered through the capillary walls at the arterial end is greater than that which is absorbed back into the capillaries at the venous end. There is thus an accumulation of fluid in the extracellular spaces, which when clinically noticeable is called edema. The common sites of edema are the dependent portions of the body, where the venous hydrostatic pressure is greatest, and the regions of low elastic tissue pressure.

2. *Visceral edema*, involving the lungs, intestines and other organs. Such edema is potentially more dangerous than that found in the periphery.

3. *Obstruction*, partial or complete, of the stomata in gastrointestinal operations.

4. *Diminished gastro-intestinal motility* because of edema of the bowel wall, leading in moderate cases to distention, in severe cases to ileus.

5. *Delayed wound healing*, because of protein deficiency and because of edema of the wound surfaces. Evisceration is not infrequently produced on this account.

6. *Liver damage* and greater susceptibility of the liver to intoxication by drugs.

7. *Increased susceptibility to infection.* It has been shown by Cannon³ and others that there is a marked lowering of the gamma globulin fraction of the plasma proteins in protein deficiency. In this fraction reside the plasma antibodies. This reduction of gamma globulins may occur in the face of a rise of the total globulins. Cannon has been able to demonstrate the diminished development of specific antibodies in protein deficiency animals.

8. *Susceptibility to shock.* Since shock itself is associated with a lowered blood volume, the development of the shock condition is easier if hypoproteinemia and the accompanying plasma volume is already present.

9. *Diminution or complete absence of urine* associated with a diminished blood volume. This condition may occur when there is an accom-

panying dehydration and sodium and chloride deficiency. Rhoads⁴ has demonstrated the difficulty in restoring the normal blood volume and adequate urinary flow in post-operative conditions associated with a low serum protein. When saline fluids are given in such cases, edema may be increased without a rise in serum chloride and plasma volume and without any marked increase in urinary output.

10. *Anemia.* Whipple⁵ has demonstrated the importance of protein as well as iron in hemoglobin formation. Such anemia is sometimes not recognized because the patient has a diminished plasma volume.

11. *Increased danger of thrombosis and embolism.* An indirect result of protein deficiency is that, because of prolonged convalescence, ambulation is delayed and the risk of thrombosis and embolism is much increased.

Recognition of protein deficiency. Protein deficiency is almost always associated with hypoproteinemia. The latter finding is therefore utilized as a measure of protein deficiency. However it is chiefly the albumin fraction which is diminished. In the presence of chronic infection, the total globulin may be higher than normal, so that the total protein concentration may not be markedly lowered even though there may be considerable hypoalbuminemia. For this reason the rapid methods for serum protein estimation which determine only total protein concentration, such as the falling drop methods and the copper sulphate method, may be misleading. In cases of suspected protein deficiency it is better to determine both the albumin and globin concentrations by a macro or micro Kjeldahl method.

Protein deficiency may be masked by the hemoconcentration that accompanies dehydration. In such cases, the serum concentration may be within normal limits only to show up in its true low level after rehydration has been brought about by administration of saline solutions. The true deficit in the total circulating protein can be ascertained by a determination of the plasma volume by the injection of a known amount of poorly diffusible dye such as Evans Blue. The average person weighing 70 kilograms normally has about 50 cc. of plasma per kilogram or a total of 3500 cc. The total circulatory protein of such an individual is 35×7.0 or 245 gm. (The

normal protein concentration probably lies between 6.4 and 7.5 gms. with an average of 7.0 gms. per 100 cc. Of this amount about 4.5 gm. per 100 cc. is albumin). In dehydrated individuals with protein deficiency, Abbot and Mellors⁶ have found that though the protein concentration may be of the order of 6.4 gm. per 100 cc. (which appears to be within normal limits) the actual plasma volume may be only 2500 cc. and the total circulating protein thus only 160 grams or about 65 per cent of the normal value.

The best way to determine the dynamics of protein metabolism is to study the nitrogen balance of the patient. Exact measurement of the nitrogen of the food may be too difficult except in research programs, but approximate results may be obtained by the use of standard tables of food analyses. Similarly, though exact analyses of nitrogen output includes that of feces, drainage, excretions and exudations, in the cases where these are minimal, the analysis of 24 hour urine may suffice to indicate the nitrogen output, 1 gram of nitrogen being added to allow for other excretions. Thus the net daily nitrogen loss may be estimated, or the extent of positive nitrogen balance that can be achieved on a high protein management determined.

It is not easy to estimate the amount of nitrogen deficit present in any individual with protein deficiency. However an approximation can be obtained by the use of the formula derived empirically by Lusk⁷ in his study of starvation, namely, that 30 grams of nitrogen is lost with every kilogram of weight loss. Thus a patient with cancer of the esophagus who has lost 31 pounds or 14 kilograms has a body protein nitrogen deficiency of 420 gms. The recognition of the magnitude of this quantity is important; for, as will be seen further, a successful parenteral amino acid program produces a positive nitrogen balance of about 4 gm. daily. Such a regimen would require 105 days for complete restitution of lost tissue proteins. On the other hand, an oral protein regimen that induces an average positive nitrogen balance of 12 gm. daily will require only 35 days.

Another method of estimation of the protein loss has been offered by Elman⁸ who calculates that for every 31 gm. of protein lost from the body 1 gm. came from the circulating proteins of

the serum. If this formula is correct, then the patient mentioned above who had 160 gm. of total circulating protein, instead of the normal of 245, would need, in order to restore the lost 85 gm. of serum protein, to retain a total of 31×85 or 2635 gm. of protein, the nitrogen of which, on the basis of 16 per cent is 422 gm. This value, it can be seen, is of the same order as that calculated by the Lusk formula.

Treatment of protein deficiency. Obviously the treatment of protein deficiency is to make the dietary intake of protein high enough to produce a substantial positive nitrogen balance. Whenever possible this should be done prophylactically. In surgical cases the inevitable post-operative losses of nitrogen may be anticipated by a high protein diet and by large transfusions of blood before and immediately after the operation. In the actual management of cases in which the deficiency already exists the diet should be as rich in protein as possible. With the ordinary foods, it is possible to give as much as 125 gm. of protein daily if the patient's gastrointestinal condition permits the large bulk, and especially if milk and cheese are well tolerated. In such diets it is desirable to limit fat if possible and to utilize vegetables and fruits with high carbohydrate and low bulk content.

In most cases of protein deficiency, even if the patient is able to take food by mouth the limitations of appetite and of the volume capacity of the stomach make a high intake of natural protein foods impossible. In such instances it is advisable to incorporate in the diet concentrated protein foods such as dried whole milk, soybean flour, peanut flour, dried brewers' yeast, or other processed proteins. With the judicious use of such proteins it is possible to increase the protein content of the diet considerably without marked augmentation of the bulk of the diet. We⁹ have been particularly successful in the utilization of new powdered protein derivative of lactalbumin called Essenaminate (kindly furnished by Frederick Stearns and Company). In a series of 14 cases of protein deficiency in surgical patients we were able to administer as much as 300 grams of protein daily and to induce positive nitrogen balances as high as 20 gm. daily. These patients demonstrated marked increases in serum protein concentration even while the plasma volume was

increasing and showed considerable clinical improvement.

Amino acids in the form of protein hydrolysates cannot be given orally in large quantities for they are too nauseating in taste to be tolerated long by the patient. It is possible however, to administer protein hydrolysates by intranasal stomach tube. Co Tui¹⁰ and his coworkers have been eminently successful with this form of alimentation in the treatment of peptic ulcer. They were able in cooperative patients to administer as much as 400 gm. of amino acids along with glucose by the intranasal route. The limitations of this method are the requirement of complete cooperation of the patient, the annoyance and irritation of the tube, the danger of esophagitis, the psychological disadvantage of the unnatural dietary management, and the frequent association of nausea and vomiting and especially of diarrhea produced by the presence of the osmotically active concentration of amino acids in the gastrointestinal tract.

Parenterally injected amino acids. Many patients are unable to take sufficient quantities of proteins by mouth to achieve positive nitrogen balance. In fact many are unable to take oral alimentation at all. These often have the severest degree of protein deficiency; for example, patients with esophageal, gastric or intestinal obstruction, those with repeated vomiting from other causes, and who have just been operated upon. For such individuals the only available parenteral source of protein until recently has been plasma or whole blood, and these latter were not available in large quantities until the development of the blood bank and of lyophilization processes for plasma. For severe anemia and for acute losses of plasma proteins as occur in hemorrhage, burns, and traumatic shock, such transfusions of blood or plasma are of course invaluable and often life saving; but as a means of restitution of severe and prolonged protein losses they are impractical and ineffective. One thousand cc. of plasma furnished a maximum of 70 gm. of protein. These remain in the vascular bed only temporarily and become eventually hydrolyzed to amino acids and are utilized like any other source of amino acids. Even if the daily injection of 1000 cc. of plasma were feasible (equivalent to the plasma of 4 donors) the degree of positive nitrogen balance achievable

would be inadequate for restitution of large protein losses. Some other or additional source of protein is necessary. In 1939, Elman and Weiner¹¹ reported the successful intravenous injection of protein hydrolysate into human subjects and thus inaugurated a new era in parenteral therapy.

In the last 7 years, the parenteral administration of amino acids has become an established clinical procedure. Its most obvious and most popular use has been in surgery, particularly that of gastrointestinal diseases. One of the important advances in surgery of the last 15 years is the recognition of the direct relationship of the patient's state of nutrition to his chances of withstanding well the shock of the operative procedures and the anesthetic, of resisting post-operative infection, of achieving primary closure of the operative wound and of avoiding other post-operative complications. The patient should be in water and electrolyte equilibrium during and after the operation. Post-operative starvation and its accompanying acidosis must be avoided. Anemia must be corrected. Vitamin deficits, especially of Vitamins B Complex and C, must be ameliorated. Also, as has been shown earlier, protein deficiency must be avoided or treated. These requirements can be met these days by parenteral alimentation. When the requirements of all the above mentioned constituents are large, it may be necessary to give 4 or more liters of fluid daily, a good portion of which must be hypertonic and which may therefore eventually produce thrombosis of available veins.

For post-operative maintenance of patients who have been in good nutritional state prior to the operation, the parenteral management is not difficult. A regimen for the first post-operative day of 1 liter of physiological saline, 1 liter of 10 per cent glucose and 1 liter of 6 per cent amino acids is adequate. If vitamins must be given a liberal maintenance dose of Vitamin B complex and from 200 to 500 mg. of Vitamin C can be added to the bottle containing the saline solution. On successive days a portion of the saline solution may be replaced with 10 per cent glucose.

Our experience with parenteral administration of amino acids at the Cook County Hospital has been founded on an appraisal of this therapeutic instrument by careful nitrogen balance studies¹²

carried out on a series of 14 patients with severe protein deficiency in whom the only source of protein nutriment was parenterally injected amino acids. These patients had obstructing lesions of esophagus or stomach and were being prepared for surgical operation. They all showed marked loss of weight, dehydration and anemia. Their parenteral alimentary program was much more difficult than that of the usual post-operative case, for they could take nothing or only liquids by mouth and had to be given large quantities of protein and glucose and salt, in addition to Vitamin B and C, because of their severe nutritional deficiency. It was found possible to give as high as 135 gms. of amino acids* daily and at the same time enough glucose to approach or meet the minimal caloric requirements. When the obstruction was not complete, supplementary oral feeding of carbohydrate was possible. Because of the repeated injection of hypertonic solutions, thrombosis of veins was not uncommon. This phenomenon can be anticipated by making the early injections as low down on the vein as possible and progressing cephalad.

In 13 of the 14 cases, positive nitrogen balance was achieved. In several this occurred with administration of 60 gm., in still others 90 or 120 gm. were required. In one case 135 gm. was insufficient to produce positive nitrogen balance. This variability of requirement was probably due to the special metabolic condition of the individual patient. It was found for example, difficult to produce nitrogen balance in the period immediately following an operation on the gastrointestinal tract, a finding that is probably an example of the catabolic effect of trauma, in which the tissues are believed to be temporarily incapable of synthesizing proteins from amino acids.

These patients bore the regimen well and after a few days showed clinical improvement. There were no reactions except occasional nausea and vomiting if the injections were given too rapidly. There was some gain in weight, improved appe-

*The amino acid preparation used in these studies was Parenamine, furnished by Frederick Stearns and Company, Detroit. This product was casein acid hydrolysate, fortified with tryptophane. It came in bottles of 100 cc. containing 15 gm. of amino acids. In a more recent similar study comparable results were obtained with the use of a new lyophilized casein acid hydrolysate furnished by the Interchemical Corporation.

tite and a greater sense of well being. The extent of positive nitrogen balance seldom exceeded 4 gm. daily. With such a regimen for an average period of only 14 days, the gain in serum protein was usually not very great. In some cases no gain at all was seen. In the progressive cases of carcinoma, a fall of serum protein occurred even in the presence of good positive nitrogen balance. However in other cases not in this series, in which the lesion was reversible, increases in serum protein concentration during parenteral amino acid management were much more common.

The clinical impression gained by these studies was that the parenteral injection of amino acids was an important nutritional instrument in the pre- and post-operative management of patients with surgical diseases of the gastrointestinal tract. However it was impractical, when used as the sole source of protein alimentation, in restoring the large nitrogen losses in such patients. On the other hand, it was recognized that if such a parenteral program was supplemented by frequent transfusions of blood, and by as high an oral nitrogen intake as possible, much better and faster clinical improvement was possible.

Blood chemical changes following the administration of amino acids were studied as part of our investigation.¹³ The fasting amino acid nitrogen concentration ranged from 3 to 8 mg. nitrogen per 100 cc., (as determined by the author's colorimetric naphthoquinone method¹⁴). The intravenous injection of from 40 to 55 grams of amino acids in distilled water or in a saline solution or in glucose solution at a rate of 15 to 20 gms, per hour produced an immediate rise in amino acid nitrogen concentration which reached its peak most often midway during the injection and returned to the base level in 1 or at the most 2 hours after the completion of the injection. This meant that the rate of removal of amino acids at the peak was greater than 20 grams per hour. Since little was found in the urine during this period, the amino acids had been taken up by the tissues. That some was immediately deaminized was indicated from the rise in blood urea nitrogen concentration which reached its peak an hour after the injection. The plasma amino acid nitrogen level was seldom higher than 10 mg. per 100 cc. but if the injection rate was increased to 25 or more gm.

per hour levels up to 13 mg. per 100 cc. might be reached which were usually attended with symptoms of nausea, vomiting, headaches and flushes. It is the prevailing opinion that these symptoms are due to high plasma levels of glutamic and aspartic acids. To avoid these symptoms, amino acid injections should be made at a rate of 60-80 drops per minute for a 5 per cent solution or a correspondingly slower rate for more concentrated solutions.

SUMMARY

Protein deficiency occurs in a variety of clinical conditions associated with insufficient intake or absorption, increased losses or increased requirements. Such deficiency is deleterious to the health of all body cells and produces a number of specific signs and symptoms. Protein deficiency is usually accompanied by hypoproteinemia which can be used as a diagnostic test if consideration is given to the possible masking effect of diminished plasma volume and increased globulin concentration.

The therapy of protein deficiency consists of giving as high a protein diet as possible. Intake of 300 gm. of protein or more can be achieved by the addition of special concentrated protein derivatives to the dietary, if these are biologically good proteins, acceptable in taste, are well absorbed, and do not produce diarrhea.

Parenterally injected amino acids in the form of specially prepared protein hydrolysates are capable of producing positive nitrogen balance when given as the only source of protein. Such injections are of great value in preparation of patients for surgical operation who cannot take food by mouth and in the early postoperative management. Parenteral amino acid therapy, unless accompanied by blood transfusions and an accessory oral intake of protein, is incapable of restoring the large protein losses in patients with long standing protein deficiency. Injections of amino acids should be given at a speed less than 20 gm. per hour to avoid nausea and vomiting and other symptoms. Though intolerance to amino acid injections varies with individual sensitivity, it is most likely to occur if the plasma amino acid nitrogen level rises above 10 mg. per 100 cc.

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MEETING AN EMERGENCY SITUATION IN AN EPIDEMIC OF DIARRHEA AND ENTERITIS OF THE NEWBORN

E. V. THIEOFF, M.D., M.P.H.

Commissioner of Health
PEORIA

Peoria, with a population of 105,087 (1940 census), has three hospitals: Methodist, Proctor and St. Francis. These hospitals serve not only the city but also a large area surrounding the city.

St. Francis Hospital suddenly found it necessary to close its maternity section and nursery of the newborn on June 13, 1946 because of an epidemic of diarrhea and enteritis of the newborn. There are normally an average of 150

births occurring at St. Francis Hospital each month. So the closing of the St. Francis maternity ward created a real emergency in the city, as the question immediately arose as to where cases, which usually would go to St. Francis Hospital, could be delivered.

The City Health Commissioner of Peoria immediately called a general meeting at St. Francis Hospital on the evening of June 12, 1946. The purpose of the meeting was to discuss emergency maternity facilities and care which might be provided during the period that intake of maternity cases would be closed at St. Francis Hospital. The following were invited to the meeting:

1. *Physicians*: Peoria Medical Society representatives, Maternal Health Committee members, Child Health Committee members, Obstetricians, Pediatricians, General practitioners caring for maternity cases.

II. *Hospitals*: St. Francis, Methodist Hospital, Proctor Hospital, Hospitals in Pekin and Washington, Peoria County Home and Hospital.

III. *Official Agencies*: Illinois Department of Public Health, Peoria City Health Department, Peoria County Health Department, State District Health Department No. 7, State Department of Public Welfare, Regional Office, Illinois Public Aid Commission.

IV. *County*: Chairman, Peoria County Board of Supervisors, Chairman, Health Committee, Peoria County Board of Supervisors, Chairman, County Home-Hospital Committee, County Board of Health, Township Supervisors (Peoria Township, East Peoria Township).

V. *Voluntary or Non-Official Agencies*: Peoria Community Chest and Council, St. Francis Community Clinic, Florence Crittenton Home of Peoria, Visiting Nurse Association, Catholic Charities, Child and Family Service, Central Volunteer Bureau, American Red Cross, Salvation Army, South Side Mission.

The response to this meeting was excellent. There was a large attendance of representatives from all of the above mentioned groups.

In discussing the problem at the meeting it was recognized that patients to be cared for would fall into two categories, namely:

- a. Private physician's cases and
- b. Medically indigent cases as supplied through the St. Francis Community Clinic and the Ma-

ternity Center of the Peoria City Health Department.

It was decided that the resident physician on obstetrics at St. Francis Hospital would deliver all indigent cases in their homes, being assisted by a nurse from the same Hospital.

All cases were divided into three types, namely: (1) Normal deliveries; (2) Cases showing obstetrical pathology; and (3) "Dirty" cases such as those with communicable diseases, with upper respiratory infections, and with diarrhea of the expectant mother. It was decided that the so-called "dirty" case should be delivered in the home and none of them admitted to any of the hospitals in operation.

An inventory of community resources for the care of maternity cases was made.

I. *Deliveries in Institutions*—Both the Methodist and Proctor Hospitals in Peoria, as well as the hospitals in Pekin and Washington, stated that they would take all the cases for delivery which they possibly could. As a matter of policy the Methodist Hospital stated it would give preference to the admission of cases in the following order:

1. Emergency cases showing obstetrical pathology.
2. Private cases of staff physicians.
3. Private cases of other physicians.

It was decided that all normal cases would be sent home from the hospital in an ambulance on the third day after delivery and that convalescent care would then be given in the home. All other cases would be discharged from the hospital as soon as it would be safely possible in the opinion of the attending physician. The hospitals cleared with Physicians' and Surgeons' Exchange daily as to the number of available beds.

The Florence Crittenton Peoria Home decided to convert their parlor into a six-bed maternity ward for the care of cases of private physicians and to open the use of their delivery room. The Illinois Department of Public Health, Division of Public Health Nursing, supplied two nurses and the Peoria City Health Department supplied one nurse for full time duty to the Florence Crittenton Peoria Home to assist in this additional service. These nurses were relieved on their day off each week by nurses from the City and County Health Departments. Additional hospital

beds and equipment were furnished the Home by St. Francis Hospital.

II. *Home Deliveries*—For home deliveries the hospitals offered to supply physicians with sterile packs of supplies. They also made available the services of hospital nurses and interns to assist in the home deliveries. Physicians could also request nursing service for home deliveries through the Physicians' and Surgeons' Exchange, the Peoria Visiting Nurse Association, the Peoria City Health Department and the Peoria County Health Department.

Following the general meeting at St. Francis Hospital, the Board of the Seventh District Nurses Association met with representatives of the hospitals and public health agencies to organize all nursing services necessary to meet the emergency. In addition to the nursing services already described it was decided to offer bedside care of mothers and babies in the homes as requested by the physicians. Postpartum nursing service in the home was made available in the city by the Peoria Visiting Nurse Association and the City Health Department and in the county by the Peoria County Health Department.

The Peoria City Health Commissioner and the supervising nurse from the Peoria County Health Department spoke on a radio program, reassuring the women that adequate care would be given every case. They explained the program which had been planned to meet the emergency. A list of supplies needed for home delivery and which might be purchased in local drug stores was given.

The maternity section of St. Francis Hospital was closed from June 13 to August 26, 1946 (inclusive). During this period there were 711 hospital and home deliveries in Peoria as follows:

Methodist Hospital

Residents of Peoria	293
Nonresidents of Peoria	258
<hr/>	
Total	551

Proctor Hospital

Residents of Peoria	58
Nonresidents of Peoria	55
<hr/>	
Total	113

Florence Crittenton Peoria Home

Total	20
<i>Deliveries in Homes</i>	
In Peoria City	27
In Peoria County and outside of the city	3

Total 30

Out of 711 deliveries taking place during the period of the emergency, 282 cases were given nursing care in the home. The total nursing services were as follows:

	City Health Dept. V.N.A.	*Co. Health Dept.	Total
Postpartum cases admitted to nursing service	59	193	30
Home visits to postpartum cases	252	896	95
Infants admitted to nursing service	59	191	32
Home visits to infants ..	289	1011	111

*County Health Department visited only cases residing outside Peoria City.

It is felt that the entire program as planned and executed to meet the emergency was most successful. The whole program was well-organized and was carried out without any apparent difficulty. It illustrates what can be accomplished by cooperative planning and effort in a community. It is herewith presented in the hope that it may offer suggestions to other communities which may be faced with meeting a similar emergency.

AMERICAN INVESTIGATORS FIND NEW USE FOR BRITISH ARSENIC ANTIDOTE

BAL (British Anti-Lewisite), an antidote against arsenic-containing substances designed for chemical warfare, has also proved to be an effective antidote against gold salts poisoning which may occur in the treatment of rheumatoid arthritis, according to three groups of investigators writing in the March 15 issue of *The Journal of the American Medical Association*.

Five cases of acute poisoning due to gold and one of acute poisoning due to arsenic have been treated successfully with BAL at the arthritis clinic of the Philadelphia General Hospital by Abraham Cohen, M.D., Philadelphia, Joel Goldman, M.D., Lewiston, Pa., and Alfred W. Dubbs, M.D., of Allentown, Pa.

No previous publication on this use of BAL has come to our attention," state the physicians.

Although rashes, scaling of the skin and other poisonous manifestations of gold salts are almost dramatically cleared away with BAL, the physicians caution that this antidote is not entirely harmless. It may produce nausea, vomiting, and pain in the legs, arms, abdomen and head.

Another group of investigators — Charles Ragan, M.D., and Ralph H. Boots, M.D., of New York — report the treatment at Presbyterian Hospital of five patients who developed skin inflammation following treatment with gold.

They state that in four patients in whom the inflammation had existed for less than two months the intense itching ceased and the rash cleared under treatment with BAL. In one patient in whom the rash had existed for three months the itching continued, as did the rash.

A third group of investigators from the University of Buffalo School of Medicine and the Buffalo General Hospital report that BAL treatment beneficially altered two serious reactions to gold salt therapy. The physicians are L. Maxwell Lockie, B. M. Norcross and C. W. George, all of Buffalo.

HEALTH EXAMINATION OF SCHOOL CHILDREN

(Continued)

the standards established jointly by the Illinois Dental Society and the Division of Public Health Dentistry of the State Department of Public Health.

Having performed these services, the physician and dentist will have done his very best in contributing toward the welfare of our greatest future asset, our children. To increase their ability to learn, to permit them to enjoy happier living, to prevent the complications that come from neglect and ignorance, in short, to lock the barn *before* the horse escapes, these are the aims of a physical examination in a sound school health program. Given an understanding of these aims, a reasonable compensation, and a practice that is not over-crowded, the majority of physicians and dentists will welcome the opportunity of examining the pupil.

Industrial Health

Committee On Industrial Health — Jos. H. Chivers, Chm., 836 S. Michigan Ave., Chicago 5, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

ATTENTION OPHTHALMOLOGISTS!

The Joint Committee on Occupational Ophthalmology of the American Medical Association requests the names and addresses of physicians interested in industrial eye work. A directory is being compiled of ophthalmologists expressing an interest in industrial eye problems. By interest in industrial eye problems they mean any single phase or all phases, such as:

1. Interest in medical or surgical eye care.
2. Interest in guiding industrial eye programs for Industry.
3. Interest in doing industrial eye work within a plant.
4. Acting as consultant in the setting up of an Eye Protection program.
5. Guiding a study of eye hazards, near point problems, corrective programs.

It is requested that any physician, particularly the younger men out of service to whom this applies send his name and address to

Hedwig S. Kuhn, M.D.

Secretary of the Joint Committee on
Ophthalmology
112 Rimbach Street
Hammond, Indiana

trial workers are asking for more adequate health service and employers are seeking the advice and direction of the medical profession to formulate a type of medical care to meet this need in small establishments.

The Medical Society of the County of New York has initiated a program which might be considered as a pattern for solving a comparable problem in Illinois. The following excerpt from the Industrial Health Bulletin (March 1947) of the A.M.A. should be of particular interest to industrial physicians and those of our profession who are concerned with an adequate health programs in this State.

J.H.C.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK

The Medical Society of the County of New York has authorized its Special Committee on Industrial Medicine to organize and conduct a three year program, the objective of which is to bring about the installation and operation of a modern plan of industrial health service in every industrial plant within the County of New York.

Inasmuch as most large industrial establishments (employing 500 or more workers) already operate a more or less comprehensive plan of health protection and industrial hygiene, the principle emphasis of this effort will be directed to the smaller plants, of which there are reported to be some 16,000 in Manhattan Island, embracing 400 categories of employment.

The Program outlined below has been under development for more than two years, and is the product of careful and prolonged consideration by many people representing all possibly in-

A PROGRAM OF INDUSTRIAL HEALTH SERVICE FOR SMALL INDUSTRIAL ESTABLISHMENTS

In Illinois there are over 12,000 industrial establishments employing less than 500 workers. None of these employers can economically install and maintain a program of medical care for employees at a proper standard of service. Indus-

terested groups. It is based upon these premises:

1. Modern industrial health service is beneficial to the worker, profitable to the employer and a contribution to the general health and welfare of the community.

2. For the plant employing fewer than 500 persons, it is generally not feasible economically to employ the full time services of an industrial physician.

3. There is a large and growing number of physicians interested in industrial medicine who have received some formal training and practical experience in that field and who would welcome an opportunity, with competent guidance, to organize and operate an industrial health service in several plants, each on a part-time basis.

4. The medical society, as an impartial professional group, has a public responsibility to demonstrate the values and benefits of such a service to both industry and labor, and to serve as the catalyzing agent in bringing all interested agencies together in realizing a community program for better industrial health.

The main thesis of this program — that satisfactory industrial health services can be operated in groups of small plants, each utilizing the part-time services of a physician — has already been demonstrated on a limited scale, notably in the Fort Greene Section of Brooklyn, in Philadelphia and elsewhere. Standards and schedules covering costs, equipment, the amount of professional services required and the prospective economic benefits of industrial health services for small plants have been published by the National Association of Manufacturers, the Chamber of Commerce of the United States, the American Medical Association and other organizations.

There is an enormous potential demand for this service on the part of employers of small enterprises — but the demand is inarticulate for lack of practical ways of realizing it. On the other hand there is a large and rapidly growing potential demand on the part of physicians for opportunities to build a career in industrial medicine. In evidence of this, more than three hundred New York physicians have replied to a questionnaire published twice in "New York Medicine", indicating that they have had some sort of experience or formal training in industrial medicine and desire further opportunities

for service in that field. In addition, several hundred returned veteran physicians have registered their desire with the County Medical Society for employment part or full time in industrial medicine.

The Special Committee on Industrial Medicine has proposed that the Medical Society of the County of New York authorize it to engage in a three year campaign, embracing the following steps:

1. To define the scope of a satisfactory medical service in a small industry. (This has been accomplished through a resolution approved by the Society — See Appendix A.)

2. To engage a suitable field representative, with a supporting staff, who will carry a campaign of education and publicity among industry, labor and the public on the advantages of good medical and health service for industrial establishments.

3. To organize a public spirited group of representatives of manufacturers' associations, labor organizations, insurance companies, foundations, and other organizations interested in industrial health, who together will comprise a community advisory council for the extension of industrial health.

4. To actively solicit the interest of individual employers and their workers in establishing a modern industrial hygiene program in their establishments.

5. To make available to such industries the names and professional qualifications of physicians trained or experienced in industrial medicine and desiring further employment in this field.

6. To aid these physicians in installing and operating satisfactory programs in individual plants and to help them in maintaining proper standards of service.

7. If necessary, to arrange training courses for physicians interested in entering industrial medicine, in order to increase the supply of specially trained physicians.

The Medical Society has authorized its committee to undertake this program. (See Appendix B, attached) The Committee has divided its work and established sub-committees for the following purposes (1) Contact with employers; (2) Fund Raising; (3) Publicity; (4) Qualification and Classification of Industrial Medical

Services; (6) Educational Extension. An Executive Committee of three members will correlate all these functions, and supervise the general administration of the project. Clerical assistance, office space and telephone service will be donated by the Medical Society of the County of New York.

The plan of action now being considered by the Committee is:

First, to solicit funds;

Second, to engage a suitable lay representative who will supervise the administrative and promotional aspects of the program, and make initial contact with plant operators and workers;

Third, to engage a physician experienced in industrial work who will follow up the approaches initiated by the field representative or by members of the committee; survey and analyze the needs of each particular plant; inform the managers and workers of the precise program recommended for their enterprise, its cost and potential benefits; assist the plant in finding a suitable physician to operate the service; assist the physician, once he is employed, in installing and developing an industrial health plan; and periodically review the progress of each industrial health program established through the efforts of this Committee;

Fourth, to set up a community advisory committee or council for the extension of industrial health service, as outlined above. This council will assist in interesting management and labor in this program and in publicizing its accomplishments.

The Committee believes that the most effective way of interesting new employers and their workers in establishing an industrial health service is to offer to make a survey of the special problems and needs of each plant, after which a specific plan can be recommended, tailored to the requirements of the individual plant. After the plan has been adopted in a given plant the Committee proposes to be in a position to aid in its development, to assist in the maintenance of good standards, and to provide a continuing advisory and educational service both for the plant physician and for the employer and employees.

The annual budget necessary for a full scale demonstration program of the type outlined above, is estimated as follows:

Salaries, two executive staff members	\$20,000
Secretarial staff	3,000
Telephone (to be paid by the County Medical Society)	
Supplies and Stationery	*1,200
Traveling & Expenses	1,000
Office Rent (to be paid by the County Medical Society)	
Taxes and Social Security	1,500
Postage and Printing	5,000
Legal & Insurance	800
Miscellaneous	2,000

TOTAL \$35,000

It is considered likely that further portion of the above budget could be met by the County Medical Society, if other funds were made available for the major portion of it.

APPENDIX A OUTLINE OF A PROGRAM OF MEDICAL SERVICE FOR SMALL INDUSTRIAL PLANTS*

1. The personnel and scope of a medical service in a small industry is to be determined by the number of employees, the safety and health record and the nature of the work.
2. To be acceptable, an industrial medical program shall be under the direction of a qualified doctor of medicine, licensed by the State of New York.
3. The industrial physician should have at least one of the following qualifications:
 - (a) previous industrial medical experience
 - (b) attendance at an accepted post-graduate course in industrial medicine
 - (c) hold a certificate issued by the County Medical Society indicating attendance at a Society-sponsored course of training in industrial medicine.

Beyond these basic requirements, the "Qualifications of an Industrial Physician", as formulated by the American College of Surgeons shall be taken into account insofar as possible.

4. The medical office for each plant should be located in, or as close as possible to the premises of employment. In general, the equipment of a small plant dispensary should follow the recommendations of the Conference

*Approved by the Medical Society of the County of New York, May 27, 1946.

Board of Physicians in Industry (affiliated with the National Industrial Conference Board).

5. An industrial Medical and Health Service should comprise:
 - a. Supervision of industrial health and hygiene in the plant;
 - b. Education in health and safety measures;
 - c. Advisory Services of official agencies such as the Health Department, the Labor Department and others, as well as all voluntary agencies;
 - d. Disease Prevention Program;
 - e. Special attention to older, handicapped and rehabilitation cases;
 - f. Pre-Placement and periodic and post-illness physical examination;
 - g. Treatment of minor injuries sustained while the worker is in the plant;
 - h. Health consultations and temporary treatment with workers."

APPENDIX B

Resolution of Authority, Adopted by The Medical Society of the County of New York

October 28, 1946

WHEREAS, The Medical Society of the County of New York at its annual meeting of May 27, 1946, adopted an Outline of a Program

of Medical Service for Industry, particularly for Small Industrial Establishments, as prepared by the Committee on Industrial Medicine, and

WHEREAS, The Committee on Industrial Medicine feels that this program should be put into effect, be it

RESOLVED, 1. That a campaign of education and publicity on the importance and advantages of good medical care in industry be conducted among industry, labor and the public. The main purpose of this campaign will be the extension of industrial medical service to small industrial plants by the medical profession.

2. That an executive committee of three members of the Industrial Committee be designed as official representatives of the Medical Society and given full authority to promote the program adopted by the Society.

3. That this executive committee be authorized by the Comitia Minora to organize a public spirited group of representatives of Manufacturers' Association, Labor Organizations, Insurance Companies, Foundations and other organizations in order to obtain funds and implement a three year plan for the realization of the Society's program.



PHYSICIANS URGED TO WATCH MENTAL FACTORS IN OCULAR DISEASE

David O. Harrington, M.D., of the University of California Medical School, San Francisco, believes that "the recision of diagnostic and therapeutic procedure" available to eye physicians today has "led to a conspicuous neglect of psychic factors in ocular disease."

Writing in the March 8 issue of *The Journal of the American Medical Association*, Dr. Harrington says that "the concept of psychosomatic medicine has been enormously advanced by the experience of the second world war. . . .

"Sometimes an ophthalmologist of perhaps a thoracic surgeon attached as a Naval medical officer to a Marine regiment would live in such close contact with his troops that, unless he were of the most rigid mental makeup, he could not help but see them as fellow human beings rather than as a group of potential casualties. A short time sent on a board of censors, for example, is an illuminating medical experience. The flight surgeon in the confined atmosphere of a carrier

or at a small advanced flight training school soon learned that he must know his fliers before he could successfully treat their illnesses."

Dr. Harrington lists several ocular disturbances of psychogenic origin, including amaurosis fugax, which, he says, is "one of the commonest and most disturbing symptoms confronting the ophthalmologist." The symptoms vary from a fleeting dimness of vision which lasts only a few seconds to complete visual loss for a number of minutes at a time.

"During the war," Dr. Harrington writes, "this symptom (amaurosis fugax) was so frequently encountered in hospitals and dispensaries, both in zones of combat and in areas far removed from them, and was so obviously associated with unpleasant duty, anxiety, frustration and fear that the very term 'black-out' became synonymous with a desire for a change of duty. Many of these patients were accused of malingering, and undoubtedly some were guilty of conscious misrepresentation of their troubles, but I feel that in many instances the disturbances was real to the patient, and at times it was genuinely disabling."

Clinical Pathological Conference

PRESENTATION OF CASES

By

HOWARD WAKEFIELD, CHAIRMAN
AND

EDWIN F. HIRSCH, PATHOLOGIST
ST. LUKE'S HOSPITAL
CHICAGO
CASE 1

This white male aged 47 years entered St. Luke's Hospital for the third time on February 17, 1947. Death occurred on February 21, 1947.

History: He was first admitted to St. Luke's Hospital on August 14, 1946, to the service of Doctor G. W. Scupham, with a long history of kidney disease. Many years earlier he had been told that he had polycystic kidneys and during the past twenty years he had complained of "kidney pains", polyuria, nocturia, polydipsia and occasional episodes of hematuria. During the past two years there had been "cramps" in the extremities and trunk, weakness on slight exertion and attacks of vomiting. The abdomen was distended, with tympany anteriorly and dullness on the sides. The blood pressure was 140/100. The urine was alkaline, had a specific gravity of 1.010 and contained 50 mgm. percent of albumin. The blood contained 3.5 million red cells per cmm. and 10.2 grams percent of hemoglobin. The sedimentation rate averaged 23.5 mm. in 15 minutes. The blood non-protein nitrogen was 125, urea nitrogen 63, creatinine 12.5, sugar 108, chloride 630 and calcium 6.0 mgms. percent and the CO₂ combining power was 54.1 volume percent. The total plasma protein was 6.2 grams percent with the albumin fraction 4.79 and the globulin 1.41

grams. The urinary output during the 28 days of this hospitalization ranged to 2600 cc. daily. The second admission was on December 23, 1946. Since the last admission he had become more dyspneic and a cough had developed in the last week. There were dullness to percussion and rales in the lung bases and the blood pressure was 180/120. A tender mass in the right upper quadrant of the distended abdomen was thought to be an enlarged liver. The specific gravity of the urine was 1.011 and it contained 100 mgm. percent of albumin and many red blood cells per high power field. The blood contained 2 million red cells per cmm. and 6.0 grams percent of hemoglobin. An electrocardiogram revealed inverted T waves in leads 1 and 4 and depressed T waves in lead 2. He developed urinary retention and had to be catheterized. This was followed by chills and fever for which he was given penicillin. The values of the nitrogenous elements of the blood were comparable to those of the previous admission except the urea nitrogen had increased from 63 to 83 mgm per cent. The third admission was on February 17, 1947. At this time he complained of pain in the abdomen and back and he had passed cloudy dark-brown urine during the preceding week. He was unable to eat or drink and had attacks of coughing and hiccoughing. The urine had a specific gravity of 1.019 and it contained 100 mgms. percent of albumin. The sediment was loaded with red and white blood cells. The blood non-protein nitrogen was 353, creatinine 18.4, sugar 121, chloride 595 mgms percent and the urea nitrogen was too high to read with accuracy. The CO₂ combining power of the plasma was 17.8 volume percent and the total

protein was 6.99 grams percent with the albumin fraction 4.4 and the globulin fraction 2.59 grams. He expired on the fifth hospital day.

The essentials of the anatomic diagnosis of the necropsy are: Huge bilateral congenitally polycystic kidney; marked atrophy of the renal tissues; hematuria; bronchopneumonia, hyperemia and edema of the lungs; moderate hypertrophy and cloudy swelling of the myocardium; etc.

The right kidney was an oval cystic mass 30 by 15 by 14 cms. and weighed 2830 grams. The capsule stripped easily from the surface studded with cysts ranging to 4.5 cms. diameter and filled with a thin watery yellow fluid. Some had extravasated blood. Surfaces made by cutting after fixation in a solution of formaldehyde had many cysts but scarcely any renal tissues. The left kidney was like the right, 32 by 14 by 11 cms. and it weighed 2550 grams. The liver weighed 1770 grams. Many surfaces made by cutting had no cysts. No cysts were observed in other viscera.

Congenitally cystic kidneys are believed to result from disturbance in the embryological development of the kidney whereby primitive tubule regression does not take place and cyst structures form, gradually replacing or inhibiting the growth of the renal praenchyma. Not infrequently a similar cystic condition of the liver is associated. The condition occurs commonly in one or more generations of a family. Many of these patients survive for years despite the presence of severe azotemia and other evidence or restricted renal function.

CASE 2

This white male aged 44 years was dead on arrival at St. Luke's Hospital on February 15, 1947. He had been a patient here on three occasions under the care of Doctor Richard Capps.

History: At the time of the first admission on April 14, 1945, he complained of weight loss, fatigue, palpitation of the heart, precordial pain, dizzy spells, epistaxis and nausea and vomiting. There was said to have been a weight loss of 40 pounds in the four months before admission. The past history revealed that he was jaundiced in 1934 and was in the habit of consuming about one pint of whiskey per day.

Physical Examination at the time revealed a well developed, well nourished man without

acute distress. His temperature was 98.2° F. The pulse rate was 96 and the respiratory rate 20 per minute. The blood pressure was 140/96. There were a few moist rales in each lung base and the liver extended 4 fingerbreadths below the costal margin. The electrocardiogram was interpreted as being consistent with myocardial pathology. The amber acid urine had a specific gravity of 1.032 and it contained 50 mgm percent of albumin. The blood Kahn Test was negative and the blood counts were within normal limits. The icterus index was 5 units and there was a slow direct Van den Bergh reaction. The blood cholesterol was 290 mgm percent. Ten percent of the dye was retained in a bromosulfalein test. The sedimentation rate was 31 mm. in 15 minutes. He was discharged on the fourth hospital day with a diagnosis of chronic alcoholism. In June, 1946, he had a cholecystectomy elsewhere and about one week after this he vomited bright red blood. A second episode of hematemesis occurred in October, 1946, and a third on the day of the second admission to this hospital on November 20, 1946. The liver was enlarged and tender. The blood contained 2.2 million red and 6,800 white cells per cmm. and 5.2 grams of hemoglobin. The clotting activity of the blood was 59.6 percent of normal and the day after admission the alkaline phosphatase was 4.79 Bodansky units, the phosphorus 3.25 mgm. percent and the quantitative bilirubin was: Total 1.15, immediate direct 0.56 and indirect .59 mgm percent. The Cephalin flocculation test was 3+. A bromo-sulfalein test revealed retention of 20.8 per cent of the dye in 60 minutes. Ten days later the quantitative bilirubin was 0.63 mgm percent total and 0.29 mgm percent immediate direct. He was given blood transfusions and a diet containing from 2500 to 2900 calories with 175 to 200 grams of protein and 30 to 50 grams of fat per day. He was discharged on the eleventh hospital day and was readmitted four days later for further treatment. A gastrointestinal x-ray examination revealed no noteworthy abnormalities except an enlarged liver. The liver function tests were not appreciably different than those of the previous admission and the anemia persisted with erythrocyte counts around 2.4 million per cmm. and an hematocrit reading of 29 volume percent. He was discharged on the

tenth hospital day. He was dead when he arrived by ambulance at this hospital on February 15, 1947.

The essentials of the anatomic diagnosis of the necropsy are:

Marked cirrhosis (Laennec) of the liver; ruptured varix of the esophagus; large recent hemorrhage into the stomach and intestines; marked generalized anemia; moderate ascites; moderate atherosclerosis of the aorta, etc.

The abdomen contained 950 cc of a yellow limpid fluid. The biliary lymph nodes were small, the common and other bile duct structures had no changes. The gallbladder had been removed. The tan brown nodular liver weighed 2850 grams, the lower margin was rounded. Many nodules covered the external surface of the liver and ranged to 8 mms diameter. On surfaces made by cutting, nodules of liver tissue had replaced the entire parenchyma and between them were bands of dense fibrous tissues. The retroperitoneal veins were dilated as were those in the lower third of the lining of the oesophagus. Opposite these in the mucosa were superficial erosions. The stomach was dilated with fluid and clotted blood. The bowel also had a similar content. The examination of the other structures of the trunk, head and neck disclosed nothing significant excepting marked anemia.

Death with cirrhosis of the liver commonly results from hemorrhage into the upper portion of the gastrointestinal tract, especially from a ruptured varix in the lower segment of the oesophagus. The prevention or control of hemorrhage from these varices presents a difficult problem, as yet not solved by surgical or other procedures.

CASE 3

A white adult female, estimated to be about 60 years of age, was admitted to St. Luke's Hospital on February 18, 1947 to the service of Doctor N. C. Gilbert. Death occurred on March 4, 1947.

History: She was comatose at the time of admission and no history was available. It was learned from the doctor who sent her that she had a cerebrovascular accident following the administration of a dose of salyrgan on the day of admission.

Physical examination revealed an obese female who did not respond to questioning. The

blood pressure was 90/60 and the pulse rate was 96 per minute. The eyes were deviated to the left, the pupils were equal and small, and the light reaction was sluggish. There was a questionable auricular fibrillation of the heart. Auscultation of the chest was unsatisfactory. There were flaccid paralysis of the right arm and spastic paralysis of the right leg. The Babinski and Chaddock tests were positive bilaterally.

Laboratory Examinations: The urine had a specific gravity of 1.013. It contained no sugar but there were 30 mgm percent of albumin. A blood chemistry study on the day after admission revealed a urea nitrogen of 19.9, a non-protein nitrogen of 43.9 and a blood sugar of 121 mgms percent, and a carbon dioxide combining power of 57.9 volumes percent. The blood sedimentation rate was 1 mm. in 15 minutes. The erythrocyte count was 5,120,000 with 16.4 gms percent of hemoglobin and a white cell count of 8,100 with a normal differential. The blood Kahn test was negative. An electrocardiogram on the day after admission revealed auricular fibrillation of the coarse type with the T wave depressed in lead 1 and inverted in all other leads. The diagnostic comment was that the curve was consistent with myocardial pathology but did not resemble one of a coronary occlusion. On February 22 a spinal fluid examination revealed a clear and colorless fluid with a total protein of 25 mgms percent, negative Pandy test, negative Wassermann test, a cell count of 1 polynuclear leucocyte per cmm. and a gold curve of 1111100000. Blood prothrombin studies made between February 19 and March 4 revealed clotting activities varying between 20.8 percent and 27.9 percent of normal.

Course: On the day after admission a left stellate ganglion block was performed with the result that the flaccid paralysis of the right arm was changed to voluntary movements and an increase of resistance to passive motion. The patient appeared more alert and opened her eyelids when spoken to, seeking the speaker. There was a marked pain reflex of the right arm both when the skin was pinched and when pressure was applied to the supra-orbital ridge. On the following day the pulsations of the left carotid artery were definitely weaker than the right. A stellate ganglion block was repeated. During

the ensuing days there was little improvement. On the 14th hospital day she appeared worse and the respirations became shallow, rapid and gasping. The pulse became irregular with a pulse deficit of about 20 per minute and she expired.

The essentials of the anatomic diagnosis of the necropsy are: obturator thrombosis (embolic?) of the cranial portion of the left internal carotid artery; recent large and small infarcts of the left and right cerebral hemispheres of the brain; slight flattening of the convolutions of the left cerebral hemisphere; chronic fibrous and verrucous endocarditis (rheumatic) of the mitral valve of the heart — moderate mitral stenosis; large ball thrombus of the left auricle of the heart; focal bronchopneumonia and hyperemia of the lungs, etc.

The brain weighed 1160 grams. A grey red thrombus occluded the upper portion of the left internal carotid artery and extended a few millimeters into the left middle cerebral artery. The obturator thrombus continued through the course of the carotid artery in the cranium. On a frontal surface of the brain at the level of the

optic chiasm there was a large region of softening in the left cerebral hemisphere involving the insula and basal nuclei. Another region of softening at this level involved the region of the right putamen and external capsule. The heart weighed 400 grams with 2 cms. of aorta and pulmonary artery. There was a chronic fibrous mitral endocarditis with stenosis of the valve opening. At the free margin of the anterior leaflet were several small verrucae. In the lumen of the dilated left auricle was a large oval so-called ball thrombus, without attachments, 6 by 3.5 by 4.5 cms. There were slight fibrous thickenings of the aortic leaflets. The myocardium had no noteworthy changes. The spleen weighed 160 grams, the liver 1040. Both were hyperemic.

This patient's chronic mitral stenosis was complicated by the formation of a large ball valve thrombus in the left auricle and by a probable embolic thrombosis of the left internal carotid artery with left cerebral infarction, and another embolic infarct of the right cerebral hemisphere.



TULAREMIC INFECTION FROM MOTHER TO UNBORN CHILD CAUSES ITS DEATH

What may be the first case of death of an unborn child from infection with tularemia or "rabbit fever" from the mother while the woman subsequently recovered from the disease is reported in the current issue of *Archives of Pathology*, published by the American Medical Association.

Tularemia is called "rabbit fever" because almost 90 per cent of human infections result from contact with the infected tissues, body fluids or pelts of rabbits.

Thomas N. Lide, M.D., from the Department of Pathology, Duke University School of Medicine, Durham, N. C., states that a woman in

her eighth month of pregnancy was admitted to the hospital because of an ulcer on the finger of her left hand. She also complained of nausea, vomiting after meals and a high temperature.

She recalled that she had prepared a rabbit one week before the onset of her illness, and subsequently during that week had prepared two other rabbits for the table.

The infection became active in the infant about the fourth week of the mother's illness. She had been hospitalized about the 20th day of her illness. A sudden flare-up of her condition on the eighth day of hospitalization suggests that she was reinfected by the infant. On the 11th day the child, apparently dead for several days, was born. The patient rapidly regained health after delivery.

Council Meeting Minutes

Chicago, Illinois, March 9, 1947

The regular March meeting of the Council was held at the Palmer House, Chicago, on Sunday, March 9, 1947 with the following present: Berghoff, Neece, Stevenson, Hughes, Hopkins, Hawkinson, Hedge, Harker, Sweeney, Blair, Peairs, Hulick, English, Lane, Otrich, Coleman, Camp, Hutton, Leary, Cross, Scatliff, Thompson, VanDellen, Cole, Ann Fox, Harry Hoffinan, George Wiltrakis. At the noon hour the members of the Annual Dinner Committee joined the Council with the following men attending. Furey, Arkell M. Vaughn, Herbert E. Schmitz, Frank Fowler, J. J. Moore, Fred H. Muller.

Secretary's Report

The secretary gave his report stating that the reprinted fee schedules for the Veterans program had been mailed out of the Secretary's office during the past two weeks, and that letters soliciting contributions to the Benevolence Fund had been sent to every member of the Society. At the present time \$1,827.00 has come in for deposit.

The last of the ten post-graduate meetings were now lined up, April 3rd at East St. Louis, April 17th at Mattoon, and April 24th at Monmouth.

The arrangements for the 1947 annual meeting are progressing satisfactorily. We will publish the program in the April issue of the Journal.

The Illinois Nurses Association now has two bills to be considered, one dealing with licensure of graduate nurses, and the other referring to the practical nurses. Doctor Hutton will report on the attitude of the committee toward this legislation in his report as chairman of the Committee on Medical Service and Public Relations.

MOTION: (Harker-Blair) that the report of the secretary be received and the recommendations concurred in. Motion carried.

Report of President

Berghoff reported that John O'Neil had developed pneumonia and was at Mercy Hospital, progressing nicely. He also commented on the Benevolence Fund and the progress at this time since the letters requesting contributions had been sent out from the secretary's office. The goal of the committee is

high, and the work of the individual Councilors can aid materially in the success of this campaign.

The Scientific Service Committee is running smoothly. The handbook of speakers is now being set, and will be printed and ready for mailing sometime during the next few months. The handbook will be sent to all county society officers and to medical schools and libraries.

Hospital Survey

The hospital survey in Illinois is now complete, and it is extremely doubtful if any other state can surpass it. 99.3% of all Illinois hospitals have been surveyed, and the final product is a definite credit to the Department of Public Health whose auspices the work has been controlled and conducted. As an outgrowth of this survey it is possible that it will be recommended that the Governor appoint a hospital advisory board, and that a hospital licensing bill, prepared by the Department, will be presented to the legislature.

MOTION: (Berghoff-Blair) that it be the policy of the Illinois State Medical Society that the Post Graduate Committee be responsible for conducting and supervising all post-graduate conferences as authorized by the Council. Motion carried.

Otrich stated that undoubtedly the Scientific Service Committee has done an excellent job but there were some suggestions he would like to offer — when meetings are held in the rural areas of the state, less highly technical subjects be chosen and that it be kept in mind that the meeting will be composed of the general practitioner in a small community. He felt that the Councilors should be consulted, as has been done in the past, and that physical diagnoses rather than highly technical methods be kept in mind.

Berghoff assured him that a program for the general practitioner had always been kept in mind, but he had found through the years that the downstate men had demanded as much of the "new in medicine" as had the men from the larger metropolitan areas, and that they were not satisfied unless the standards of the talks and the speakers themselves, were kept at an "ultra modern" pitch.

Report of Chairman of the Council

Stevenson stated that he had received a letter from Dr. Charles D. Ehler of Alton inquiring about the establishment of a separate and independent "Alton-Wood River society as an integral part of the state society, separate and distinct from the Madison County Medical Society. He stated that he had replied to this letter stating that the Constitution and By-Laws of the state society read definitely that only one component medical society shall be chartered in any county — but that the request and inquiry would be referred to the Council for consideration. The secretary was instructed to confirm this reply and so inform Doctor Ehler.

Hawkinson: Medical Benevolence

Dr. Hawkinson stated that the letters to all members of the State Society asking for contributions to a permanent Medical Benevolence Fund had been mailed out from the secretary's office. The money has just started to come in. The society needs \$500,000 on this drive and with a membership of 9,600 this totals approximately \$100.00 per member which shouldn't be an impossible goal. The word should go out among the profession that any contribution up to \$1,000 should be the serious consideration of our membership. Councilors should contact county society members and through the officers, ask for cooperation.

Councilor Reports

Hawkinson stated that two meetings of interest have been held recently; the third mid-winter conference of the Chicago Medical Society, and a series of five joint meetings of the institute of Medicine, the Bar Association and the Chicago Medical Society committee on Medical Testimony. Medical-legal affairs were discussed and the meetings have been considered unusually successful.

Harker stated that one of the University roundtables had held a discussion of medical care — tainted with a good deal of Wagner-Murray-Dingell atmosphere. He had written for a copy of the broadcast and has it on hand for anyone desiring to see it.

Sweeney stated that per capita levy on our membership for the Benevolence Fund was something that might be considered by the House of Delegates. No special assessment has ever been made in Illinois, and a cause of this type might be of sufficient interest to warrant such action on the part of the House.

Peairs stated that he was glad to know Hawkinson was so optimistic relative to the Fund and felt that the Councilors could do much toward making this drive a success by working in each District.

Blair stated that the work on the part of the individual councilor is one of the most important factors in maintaining unity in the various counties in the District. His duty is to act as arbitrator. The men who are members of organized medicine definitely owe something to those outside the soci-

ety. They should have this fact called to their attention clearly, so that they will realize their responsibility.

Lane reported that Doctor Poncher had met with representatives of six southern Illinois Counties to discuss the proposed extension of pediatric services by the establishment of a branch of the University of Illinois to provide this specialty in an area where such work is not available. The men present not only approved the proposition unanimously, but also stated that they felt that Herrin would be the logical place for such extension service to be established. This is the center of population in the area.

Hutton: Medical Service and Public Relations

The activities of the Educational Committee and the Committee on Medical Service and Public Relations are now so closely intertwined that this report will be made to cover the activities of both committees. The work is divided into three departments, headed by Miss Fox, Mr. Leary and Mr. Neal. Each will be asked to report his own activities to better cover the situation for the Council. Miss Fox has established and held contacts with the Parent-Teachers Association, and the work of Mr. Neal in the legislative activities of the Society speaks for itself. Mr. Leary continues the contacts with Illinois newspapers and has assisted in the work of many and various committees. My own work has been largely concentrated upon the establishment of the machinery to bring about the practical eradication of tuberculosis in this state in order that Illinois may be able to take its proper place among progressive states working toward this end.

It is the opinion of the committee that the Council should employ someone to write the second volume of the Medical History of Illinois, since Volume 1 ends with the year 1850.

The Sub-Committee of the Educational Committee (C. P. Blair, Chairmen, Gerald M. Cline of Bloomington, E. H. Blair of Chicago, G. L. Drennan of Jacksonville and Henry G. Poncher of Chicago) will meet Friday, March 14 in Springfield to formulate plans for the Summer Roundup. They will have a report to make at the next meeting of the Council.

The Nurses Bills, one dealing with registered nurses and the other with practical nurses, are still under consideration. They should be so informed.

Stevenson: "The matter relative to the employment of a historian to complete the Medical History of Illinois should be referred to the Committee for consideration and subsequent report to the Council with a definite recommendation.

MOTION: (English-Hedge) that the Committee find someone to assume this responsibility and report back to the Council. The Council concurs in the other recommendations of the Committee. Motion carried.

Miss Fox reported that the three branches of the

public relations activities were cooperating smoothly. The Health Talks were receiving favorable comment from various sources and would prove popular throughout the state. The Encyclopedia Britannica has requested that this material be sent them. The Scientific Service Committee has received requests for speakers recently — many of them coming in with short notice given. To date all programs have been filled and all speakers have proven very satisfactory. Socialized medicine is a popular subject.

The exhibit planned for the annual meeting is progressing nicely and the artist has been hired to complete the work when the preliminary layout is ready. Also, other committees have been given assistance and help in the Educational Committee office.

Leary stated that some forty stories had gone out from his office during the past year. The tuberculosis campaign spearheaded by Dr. Hutton is progressing and good ground work has been laid. The public relations counsel will work with Dr. Blair's sub-committee on the summer roundup following the meeting to be held in Springfield Friday. One project being developed at this time is to try to interest Life Magazine in attending one of our Post-Graduate Conferences. W. G. N. will cooperate with us on annual meeting publicity and is recognizing the importance of medical news. They are open to ideas and the relationship is friendly.

I would suggest that when various committees of the Society meet, the public relations counsel be present so that possible news stories might be developed on subjects definitely of interest to the public. Also the committee chairmen might attend meetings of our committee to familiarize themselves with the services we have to offer them as an integral part of the Society.

The Society should adopt some definite attitude toward some of the legislation in Washington and publicity on these proposed bills could be distributed at the state level. The committee must have definite information relative to the attitude organized medicine plans to assume before it can function. It is possible that the opinion of the A. M. A. will be satisfactory to the State Society, or the state group might wish to express its own thoughts.

Camp: "I would suggest that all of Leary's releases be sent to the secretaries of all state medical societies throughout the country so that they will be cognizant of the work being done in Illinois. Compared with that of other states coming into my office, in Illinois material is outstanding.

Hutton: "Relative to Miss Fox's statement that other committees have been given assistance in the Educational Committee office — there is no stenographic help there at this time, and it becomes necessary for Miss Fox to do this work herself.

Assistance along this line is needed and should be authorized.

Also, for your information, Mr. Casey is writing some articles on tuberculosis and public health in Illinois, and the material will be publicized shortly.

MOTION: (English-Otrich) that the Council approve Hutton's report and concur in the recommendations. Motion carried.

Hopkins: Prepaid Care Report

Hopkins stated that the Committee on Prepaid Medical and Surgical Care Plans met at the Bismarck Hotel on March 4th. Neal and Leary are working with this committee in various capacities. Leary plans to prepare our promotional material on the Illinois Plan to present to the A. M. A., and Neal acts in an advisory capacity on the acceptance of new companies and in checking over coverage offered in the policies submitted, etc.

Members of the committee held a question and answer program at the Joliet post-graduate conference that was quite successful, and the same procedure is scheduled for another conference in April. This report today, however, can be considered as a report of progress.

MOTION: Hopkins-Hughes) that the report be adopted. Motion carried.

Veterans Administration Report

Doctor Jordan of the Veterans Administration has notified us that there must be two changes made in the present fee schedule due to lack of funds and curtailment of their budget. They have assured us that they would notify all participating psychiatrists of the changes and ask for the approval of the council for these lowered fees:

- 451. Psychiatric treatment (psychotherapeutic conference) at least 50 minutes.....\$10.00
- 452. Psychiatric treatment (psychotherapeutic conference) 25 minutes or less..... 5.00 (formerly was \$7.50)

MOTION: (Hopkins-Coleman) that the Council approve the above changes in the fee schedule.

Hawkinson: This is a bad idea to approve cuts in the fee schedule, and it undoubtedly will happen again in other cases. The psychiatrists are not going to give an hour's time for a \$10.00 fee gracefully, and the men who are participating in the program may feel it necessary to withdraw.

Sweeney: "The papers are carrying articles which would lead us to believe that the extended program will be curtailed and the Veterans Administration will return to the policies as established before Bradley's day.

Hopkins: "When the program becomes such that we cannot logically cooperate with them, the society can withdraw from the agreement.

Hawkinson: "I think we should accept the chances, but definitely under protest, and I would

so amend the motion.

Amendment carried.

Original motion as amended, carried.

MOTION: (Hopkins-Sweeney) that the report as a whole be adopted. Motion carried.

I. P. A. C. Report By Coleman

Coleman stated that the advisory Committee to the I. P. A. C. met Saturday evening, and also conferred with another group, the Commission to Study the Care of the Chronically Ill. Routine business of the Advisory Committee was transacted, and the new program which increased the surgical rates has been in effect throughout the state since the first of February. The group working on the care of the chronically ill are favorably impressed with our assistance, and by this contact we gain more friends in the legislature.

For your information the I. P. A. C. contemplates listing a cataract operation as major surgery, and several other changes may be made.

Coleman told of some of the abuses practiced by various physicians throughout the state in the filing of claims against the I. P. A. C., and that the committee planned to call these men to task for the procedure and charges so made.

The Council should be familiar with the work of Marjorie Shearon and the bulletins and pamphlets which she sends out dealing with those who are active in advocating the socialization of medicine. She is giving us efficient work and information which we can use to discuss those matters with our congressmen.

Neece, on his trip to the A. M. A. meeting in Atlantic City and the Conference of Presidents and other officers will probably get excellent information from the men scheduled to talk. Taft and General Hawley will speak and undoubtedly will have forecasts to make relative to contemplated Washington activities.

MOTION (Neece-Peairs) that the report be adopted. Motion carried

Blair on Constitution and By-Laws

The Committee on Constitution and By-Laws was asked to investigate the constitutions of various state societies and the model constitution set up by the A. M. A. for use by state societies, and determine whether or not, in the opinion of the Committee the Constitution and By-Laws of the Illinois State Medical Society was adequate. The main consideration was to be whether or not we were in error by not providing the accuser the opportunity to appeal from the decision rendered at the county society level in any action taken. This investigation was instigated as the result of the appearance before the Judicial Council of the Secretary to give information relative to action taken in a case emanating from the Chicago Medical Society. The constitution and by-laws from the states which had representatives as members of the Judicial Council, were studied as well as the A. M. A. model constitution. In all but one case no provision was made

for the accuser to appeal from a decision rendered by the county society. In one state any man or society may appeal to the state society and be heard.

In the opinion of the committee our constitution is adequate and we recommend no change.

Also in regard to the creation of a Committee on Medical Testimony, three years ago amendments were presented to the House which would have created such a Committee and the House took adverse action. The material presented was based upon the Minnesota plan, and in the opinion of the Committee, a similar amendment should be prepared by Doctor Hawkinson and should be presented to the House of Delegates again for consideration.

MOTION: (Blair-Otrich) that the report be accepted. Motion carried.

Otrich: Excellent information may be secured from Joseph H. Chivers relative to the way medical evidence is handled in Canada. It might be wise to have the secretary contact Chivers and ask him to outline this procedure.

Cancer Committee

Warren H. Cole reported as chairman of the Committee on Cancer Control and stated that no new information had been received relative to the proposed cancer hospital for teaching and research. The symposium was held and 35 down-state men attended with excellent interest and many letters of appreciation. Another course will be given due to the popularity of this work, and some 40 will be scheduled to attend the repeated program late in March. All work to date has been for the benefit of down-state men, but a one day a week, alternate weeks since transportation is not a problem for the Chicago men, will be the system used to provide the post-graduate education here in the city.

The Illinois Division has some \$5,000.00 to spend on furnishing speakers for county programs and for work of this type. They also have funds to prepare an exhibit for the Museum of Natural Science and Industry (\$25,000) and ideas are welcome as to what type of exhibit should be prepared for the public to view at the museum.

Cross as Director of Public Health

Cross stated that the hospital survey to which Berghoff had referred had been delayed, but that the Department felt that an excellent finished product could be offered. No federal funds have been used, and the survey will provide Illinois with the basis for the allocation of hospitals founded upon the actual need existing in the various areas. Only some one and three-quarters million dollars will be available in Illinois, and this precludes the necessity of allocating the money on a definite priority basis. Many areas in the state will be disappointed because of the fact that they will not be eligible for assistance.

MOTION: (Hughes-Berghoff) that Cross' report be approved. Motion carried.

Scatliff Annual Meeting

Scatliff reported as Chairman of the Committee on Arrangements calling the attention to the Council to the table of organization sent out during the past two weeks to all members of the Council, Section Officers and members of local committees. This organization and outline should help avoid misunderstanding relative to duties and responsibilities. Work is progressing nicely, and no difficulties at the local level are anticipated.

MOTION: (Berghoff-English) that Scatliff's report be accepted and he be complimented upon the caliber of his work and organization. Motion carried.

Legislators To View Exhibits

Sweeney: "In Camp's report he states that it is too bad that members of the legislature cannot view the exhibits at the annual meeting to see the progress modern organized medicine is making today. Is there any reason why members of the federal and state legislatures should not be invited to attend our meeting and see for themselves the various activities under way?"

(This is possible and invitations with an enclosed guest card can be sent to all members of the federal and state legislature.)

MOTION: (Sweeney-English) that all or selected groups in the legislature be asked to attend our meeting and that special guest badges be provided at the registration desk upon presentation of the guest card. These guest cards may also be distributed by members of the Council. Motion carried.

Van Dellen On Scientific Programs

VanDellen, chairman of the executive group of the Committee on Scientific Work, reported that about 45 speakers have been secured for the annual meeting and about 85% of the program is now complete. The remaining work is to allocate the speakers and fill in the vacant hours where talks are needed. If additional papers must be secured, in all probability the four medical schools will be glad to contribute. The section on Medicine is a little behind the others but a meeting of this committee will be held Friday evening, March 14th, to get all the loose ends gathered up and the work finished.

The Council should consider the advisability of holding the annual meeting of the state society in the fall instead of in the spring, and in all probability it would be easier to secure a better group of out of state speakers. The state meeting follows the Chicago Clinical Conference, and comes just ahead of the A. M. A. meeting and the meeting of the American College of Physicians.

MOTION: (English-Hughes) that Van Dellen's report be accepted with thanks for activities carried out under his auspices. Motion carried.

Fall Meeting?

The question of holding the annual meeting of

the state society in the fall was discussed by English, Camp, Stevenson, Hughes, etc.

MOTION: (English-Sweeney) that the Constitution and By-Laws Committee present to the House a change in the By-Laws which would provide that the Council could alter the date of the annual meeting if it seemed advantageous. Motion carried.

Certificate of Membership

Camp stated that DuPage County had asked the advisability of issuing certificates of membership to all new members as was done during the early days of the Society. These certificates could be framed and used in the physicians' offices. The Chairman recommended that the secretary look into the cost of such certificates and report at a subsequent meeting of the Council.

I.P.A.C. Payments to M.D.

Christian County has written to the Secretary asking that the payment of medical assistance under the I.P.A.C. program be made direct to the physician rather than to the recipient of assistance. The Society has passed a resolution requesting such action and has referred it to this society for consideration.

Since this payment direct to the recipient is a part of the law, no action is possible until such time as the law is changed. If the Society desires to have its delegates present such a resolution to our House of Delegates, and ask that our House, in turn, bring it before the A. M. A. in an effort to have this changed, they may do so.

Senator Lantz on Brucellosis

Senator Lantz has requested (in a letter to Otrich) that the state society go on record as endorsing legislation now in force making it compulsory that calves be vaccinated to prevent contagious abortion and the spread of brucellosis throughout Illinois. It is possible that the present law might come up for change, and it is desirable that it remain as it now stands.

Cross discussed the law and stated that it was satisfactory as it now stands, although following vaccination with "strain 19" some calves react as positive to the testing and cattle dealers are adverse to the practice.

MOTION: (Otrich-Hawkinson) that the Council go on record as endorsing this law. Motion carried.

Thompson to A. M. A.

Camp stated that a letter had been received from the A. M. A. stating that they desire to organize a group of county society secretaries and hold a meeting during the Atlantic City session of the A. M. A. Illinois was asked to select a representative. It was suggested that Willard O. Thompson as secretary of the Chicago Medical Society, the largest county medical society in the United States, be asked to represent the Illinois State Medical Society at this meeting.

MOTION: (Harker-Hopkins) that Thompson be the official representative of Illinois at this meeting in Atlantic City. Motion carried.

Quincy Hospital

Stevenson stated that the difficulties arising in Quincy due to the desire on the part of the local hospital to employ full time specialists were clearing up. By working through the Board of Trustees most of the problems are being eliminated.

Cancer Letter to Cole

The A. M. A. has written to the secretaries of all state medical societies relative to funds for cancer control programs. It would be the suggestion of the secretary that this material be turned over to Warren H. Cole as chairman of the Committee on Cancer Control of the State Society.

MOTION: (Blair-English) that the letter be turned over to Cole for reply. Motion carried.

Black-I.S.M.S. Collection

Camp reported that \$200.00 had been sent the Illinois Historical Museum to employ help in cataloguing the Black-I.S.M.S. collection of pictures, and also that a file had been purchased to house the pictures properly. In the near future the chairman of the Council, Ellsworth Black, secretary of the Committee on Archives and the secretary will go to Springfield to investigate the housing of the pictures.

Water Pollution Bills

Otrich stated that one of the recent releases from the A. M. A. had outlined a bill dealing with stream pollution. This branches into health problems and is of utmost importance.

MOTION: (Otrich-Hawkinson) that the Council go on record as supporting this bill and congressmen and senators be so notified. This shall include state senators. Motion carried.

Emeritus Members

Camp: "It might be well for the Constitution and By-Laws Committee to consider presenting to the House an amendment which would provide for the election of physically handicapped physicians to Special Emeritus Membership.

MOTION: (Sweeney-Otrich) that the following men be elected to emeritus membership: Otto G. Draper, Chicago, C. M. S.; John J. Sazama, Sr., Chicago; C. M. S.; Rachel M. Cooper, Normal, McLean County; A. B. Middleton, Pontiac, Livingston County; J. G. Young, Pontiac, Livingston County; Merit S. Jewell, Little York, Warren County; J. W. Medley, LaHarpe, Whiteside County; John A. Koch, Quincy, Adams County; Henry Reis, Belleville, St. Clair County; Nelson A. Wright, Sr., Manito, Mason County. Motion carried.

Dept. of Public Welfare Report

Harry Hoffman, state alienist, stated that he and Dr. George Wiltrakis had a serious situation to face which they wished to present to the Council of the State Society for consideration. The state hospitals are 14,000 beds shy at this time and cannot be approved by our own Department of Public

Health. Some of our physicians are 80 years of age; the average age of the physicians in one of our hospitals is 67. The situation should be considered, and Doctor Wiltrakis will present the problem that faces us.

The Statistics presented by Doctor Wiltrakis are attached as a supplementary part of these minutes for the information of members of the Council. The resolution which the Department of Public Welfare desired to have considered by the Council is as follows:

WHEREAS, The mental institutions of the Illinois Department of Public Welfare are markedly understaffed and undermanned in doctors, nurses, attendants and other personnel, and

WHEREAS, it has been difficult to attract and retain many of those qualified persons because the present salaries for employees in these institutions are below the prevailing rates in Veterans Administration hospitals, and those of the more progressive states, and

WHEREAS, the institutions require considerable building rehabilitation and are greatly overcrowded, to the extent of a 14,000 bed shortage, as shown by a recent survey of the Illinois Department of Public Health;

THEREFORE BE IT RESOLVED, That the Illinois State Medical Society recommends that actions be taken to appropriate funds in the 65th biennium for the various state mental institutions of the Illinois Department of Public Welfare to provide (1) a very substantial increase in the number of doctors, nurses, attendants and other classification of personnel to relieve the serious understaffing (2) an increase of salaries in the various categories, approximating the prevailing competitive rates of the Veterans Administration, other states and agencies, (3) immediate rehabilitation of existing hospital facilities, plus a building construction program to provide 14,000 beds to overcome the drastic overcrowding.

The above resolution of the Illinois State Medical Society is in accord with the general policies pertaining to the mental disease program as outlined in the resolution adopted by the House of Delegates of the American Medical Association at the 1946 Annual Meeting.

MOTION: (Berghoff-English) that the Council endorse the resolution as drawn up and presented. Motion carried.

Copies of the resolution were to be sent to the Governor, the Directors of the Departments of Public Welfare, Finance, Public Health, and the Chairman of the Appropriation Committee.

MOTION: (Hedge-Hughes) that the bills as audited by the finance committee be approved. Motion carried.

The Council adjourned at 1:30 for luncheon.

Respectfully submitted,
HAROLD M. CAMP, M.D.,
Secretary

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS COUNTY

Society Approves New Health Unit.—The Adams County Medical Society at a meeting February 10, recommended that the Quincy Public Health District be abolished and that the city health unit be merged with the county health unit. Dr. Daniel L. Sexton, St. Louis, gave the scientific address at the meeting on "Treatment of Hyperthyroidism with Anti-Thyroid Drugs."

Committee Named to Cooperate with Swanberg Medical Foundation.—Dr. Harold Swanberg, Quincy, was recently named chairman of a five man committee on health education and public relations of the Adams County Medical Society to cooperate with the Swanberg Medical Foundation. Other members of the committee are Drs. J. F. Ross, Ralph McReynolds, Frank Brenner, and Walter Stevenson, Jr. The medical foundation, set up some years ago with a gift by Dr. Swanberg, has decided to sponsor a five year program of health education in Quincy and Adams County at an annual cost not to exceed \$500. The first project was an infantile paralysis institute the week of April 12. It is anticipated that the second program will be on heart disease.

CARROLL COUNTY

Personal.—Dr. Joseph Benjamin Schreiter, Savanna, who graduated at Rush Medical College in 1896, was guest of honor at a dinner recently given by the Savanna City Hospital staff. Dr. Schreiter has served forty-six years as coroner of Carroll County and also company physician and surgeon for the Milwaukee and Burlington railroads.

COOK COUNTY

Alumni Reunion for Northwestern.—The Faculty-Alumni Reunion of Northwestern University Medical School will consist of a complimentary buffet luncheon in Thorne Hall, on the Chicago Campus, Monday, June 16th, from 12 to 2 o'clock. Dr. Frederick W. Merrifield, President, and Dr. Theodore R. Van Dellen, Vice President in Charge of Activities are the chairmen of this affair. At this time the graduating students, and the fifty and fifty-five year classes will be the honored guests. It is hoped

that as many as possible will plan to attend this first reunion since the war, and will send in their reservations to The Medical Alumni Office, 303 E. Chicago Avenue, Chicago 11.

The following five-year classes are urged to start to make plans for their individual reunions, for which they may wish to reserve rooms in the various Chicago hotels: 1902, 1907, 1912, 1917, 1922, 1927, 1932, 1937, and 1942. The Medical Alumni Office is very glad to assist you in any way possible.

Dr. Willson Goes to Philadelphia.—Dr. J. Robert Willson, assistant professor of obstetrics and gynecology, University of Chicago School of Medicine, has been named head of the department of obstetrics and gynecology at Temple University School of Medicine and Hospital, Philadelphia. Dr. Willson graduated at the University of Michigan Medical School in 1937, serving there for a time as a member of the teaching staff.

Faculty Members Give Emeritus Rank.—The retirement of nineteen members of the faculty of Northwestern University Medical School was marked at a dinner and reception given by the university Alumni Association, February 13. The nineteen members, who have been emeritus rank, are Drs. Archibald Church, now of Pasadena, Calif., Hans C. S. Aron, James G. Carr, William C. Danforth, Evanston, Alexander A. Goldsmith, Mark T. Goldstine, Christian D. Hauch, Willard G. Jeffries, Anna R. Meyer, Harry E. Mock, Sr., Otto Proges, Harry M. Richter, Louis E. Schmidt, James P. Simonds, John G. Wilson, and John A. Wolfer. Dr. Andrew C. Ivy, who resigned at Northwestern last fall to become vice president in charge of the Chicago Professional Colleges, University of Illinois, was guest at the occasion.

Physicians Honored.—Drs. Francis A. Ring and Frederick Tice were recently elected to emeritus membership in the Chicago Medical Society and Drs. T. J. H. Gorrell, Joseph C. Lalor, Albert H. Montgomery and J. B. Sonnenschein were elected to retired membership.

Award to Harold Hennessy.—Dr. Harold R. Hennessy, assistant secretary, Council on Industrial Health, American Medical Association, Chicago, recently was made a "Chevalier de L'Ordre de la Cante Publique." He also received an etched scroll and medallion as evidence of the honor by the French Republic.

Personal.—Dr. Paul L. Shallenberger, formerly on the staff of Wesley Memorial Hospital and instructor in medicine at Northwestern University Medical School, has joined the staff of the Robert Packer Hospital, Sayre, Pa. Dr. Shallenberger was recently released from service in the army with the rank of colonel.—Dr. Henry S. Swiontek, former intern and resident at MacNeal Memorial Hospital, has opened new offices at 6628 Cermak Road, Berwyn.

Two Year Internship at County Hospital.—Beginning July 1, Cook County Hospital will require two year internships to help offset the shortage of general practitioners. According to the Journal of the American Medical Association, Dr. Karl A. Meyer, medical superintendent, said all young doctors at the hospital will be required to undergo this general training before being permitted to specialize. The hospital required an eighteen month internship before the war, but the time was cut to one year under the government's speed up program. The two year internship will include work in obstetrics, general diagnosis, gynecology, contagious diseases, psychiatry, pediatrics and eye, ear and throat ailments.

Honorary Degree to Dr. Ivy.—A feature of the commencement of the University of Nebraska College of Medicine, Omaha, March 22, was the awarding of the honorary degree of doctor of science to Dr. Andrew C. Ivy, Vice President in charge of the Chicago Professional Colleges, University of Illinois. The citation accompanying the award read: "Distinguished physiologist, dynamic teacher, foreful writer and speaker, university administrator, creative investigator, who made fundamental studies of the gastrointestinal tract; discoverer of cholecystokinin, enterogastrone, an anti-flash burn cream and a single device that rendered sea water suitable for quenching human thirst; a tireless worker, a kind friend and an inspiration to his students—a man whose work has done much to alleviate human misery." Dr. Harold C. Lueth, formerly of Evanston, and formerly a member of the Illinois State Medical Society, is now dean of the University of Nebraska College of Medicine. Last year he was chairman of the Veterans' Service Committee of the state medical society.

Hermann J. Muller Gives Bacon Lectures.—Hermann J. Muller, professor of zoology, Indiana University, will deliver the 1947 Charles Summer Bacon Lecture, May 28, at the Chicago Professional Colleges, University of Illinois. His subject will be "Human Erosion by Mutation." The lecture

series was inaugurated in 1928 in honor of Dr. Bacon, professor emeritus of obstetrics and gynecology at the University of Illinois College of Medicine. At that time, members of the faculty and friends of Dr. Bacon contributed the sum of \$5,000 to found the lectureship. The 1947 lecture is sponsored by the department of obstetrics and gynecology at the medical school.

Fund on Tuberculosis.—Mr. and Mrs. Leon Mandel have given \$10,000 to Northwestern University Medical School to create the Leon and Carola Mandel Fund for the Study and Treatment of Tuberculosis. The grant will be used for clinical research in the pathology and physiology of tuberculosis, with emphasis on the relation of nutrition to the disease.

University News.—"Religion is Good Medicine" was the theme of a symposium at the University of Illinois College of Medicine, April 23, during an assembly hour sponsored by the Wesley Foundation. The speakers were Dr. Charles Hillenbrand, Loyola University School of Medicine; Rabbi Paul Gorin, Bethel Temple, the Chaplain Russell Dicks, Wesley Memorial Hospital.

New Officers of Heart Group.—Dr. George K. Fenn, chief of staff of St. Luke's Hospital, on March 4 was elected president of the Chicago Heart Association at a meeting in the Standard Club. Dr. Fenn, who was formerly secretary of the association, succeeds Dr. Sidney Strauss who served as president for eight years, and who asked to be relieved of his responsibilities. He remains a member of the executive committee. Other officers include Drs. Emmet Bay, vice president, and Louis N. Katz, secretary. Mr. William S. Turner is treasurer. In addition to Dr. Strauss, other members of the executive board are Drs. Stanley Gibson, chairman; Newell C. Gilbert, Phillip Rosenblum and Don Sutton. Mrs. Ruth Pearce McEldowney is executive director of the association. Honorary presidents of the association are Drs. James B. Herrick and Robert B. Preble.

Hospital News.—Provident Hospital recently installed miniature x-ray films to replace the present method of fluoroscopic examination for incoming patients with heart disease. The hospital is now conducting a campaign to raise \$250,000 for additions.

John Madden Heads New Psychiatric Unit.—Dr. John J. Madden, senior consultant of neurology, psychiatry and diagnostic services, Veterans Administration Hospital, Hines, has been named head of a new psychiatric department at Mercy Hospital. The unit has a capacity of 30 beds. Dr. Madden is also associate professor of psychiatry and neurology at Loyola University School of Medicine, where he graduated in 1928.

Northwestern Affiliates with Children's Memorial.—Dr. J. Roscoe Miller, dean of the Northwestern University Medical School, announced March 20,

the affiliation with the school of the Children's Memorial Hospital, 707 W. Fullerton Ave.

The hospital staff and the faculty of the medical school will cooperate in research and teaching related to pediatrics. Further correlation of the work of the two institutions has been arranged, with senior medical students serving part-time in observation at the hospital, and staff members of Children's Memorial using the Northwestern laboratories for research.

Mabel W. Binner, administrator of Children's Memorial, reported today that the 252 bed hospital gave 3,955 children 46,787 days of in-patient care in 1946, with 1,101 additional patients served in 45,733 visits to the hospital's clinic. Seventy-one per cent of the institution's care was given free of charge.

Founded in 1882 as the Maurice Porter Memorial Hospital, with only eight beds in a private residence, the institution, now functioning in a group of ten buildings, was given its present name in 1904.

Postgraduate School.—Michael Reese Hospital Postgraduate School, with the cooperation of members of the department of pediatrics, University of Chicago School of Medicine and Loyola University School of Medicine, are offering a course in pediatrics, May 5-31. Dr. Samuel Soskin, dean, Michael Reese Hospital Postgraduate School, is in charge of the course.

Bequests to Hospitals.—A total of \$125,000 to St. Luke's Hospital, of which \$50,000 will be held in trust, with the income paid quarterly to the women's board of the hospital, was provided in the will of Mrs. Emily Lyon Gary, newspapers reported March 11. The remainder will be used in amounts of \$25,000 each for endowing five in the women's ward in the name of Emil Lyon Gary, and five beds in the men's ward in the name of Mrs. Gary's deceased son, Kellogg Gary. Bequests of \$500 each are earmarked for Women's Board of Presbyterian Hospital, St. Vincent's Orphanage, Chicago Historical Society, Chicago Lying-In Hospital and Dispensary, and Children's Memorial Hospital.

Society News.—Drs. Max Thorek and Philip Thorek, both of Chicago, presented papers at the Second Southern Assembly of the International College of Surgeons in Tampa, Florida, February 28. Their papers were entitled, respectively, "Tumors of the Liver" and "Vagotomy—Pros and Cons."

LIVINGSTON COUNTY

Physicians Honored.—Drs. Alonzo B. Middleton and John G. Young, both of Pontiac, were made emeritus members* of the Livingston County Medical Society at a recent meeting of the society. Dr. Middleton graduated at Barnes Medical College, St. Louis, in 1898 and Dr. Young at the same school in 1906. Speakers at the meeting included Drs. Emmett Pearson on "Rehabilitation in Illinois, and Hugo Rony, Chicago, "The New Treatment of Diabetes and Diabetic Coma."

MADISON COUNTY

Fifty Years of Medicine.—Dr. John E. Walton, Alton, completed fifty years in the practice of medicine on April 10. According to the Alton Evening Telegraph, Dr. Walton went about his activities quietly, carrying on his calls as usual. Dr. Walton graduated at the Marion-Sims College of Medicine, St. Louis, in 1897. Dr. Walton first started the practice of medicine in Medora, moving to Alton in 1920. His son, Dr. Franklin Walton, is now assistant dean in charge of postgraduate program at Washington University School of Medicine, St. Louis.

Society News.—Dr. Edward H. Reinhard, St. Louis, discussed "The Use of Isotopes" before the Madison County Medical Society, March 7, at St. Anthony's Hospital, Alton. Another recent meeting of the society was addressed by Dr. Robert Bartlee, St. Louis, on "Right Upper Abdominal Pain."

MERCER COUNTY

Society News.—Dr. Frank C. McClanahan, college physician at Monmouth College, addressed the annual meeting of the Mercer County Society April 9, Aledo, on "Tropical Medicine." Dr. McClanahan is on a two year sabbatical leave from his activities as medical missionary for the United Presbyterian Church in Assuit, Egypt.

ROCK ISLAND COUNTY

Society News.—Dr. Paul Bucy, associate professor of neurosurgery, University of Illinois College of Medicine, Chicago, addressed the Rock Island County Medical Society, March 11, on "Sciatic and Brachial Neuritis Due to Intervertebral Disc."

WILLIAMSON COUNTY

Societies Approve Proposed Clinic.—The Six-County Medical Society Association, at a meeting in Herrin recently, voted unanimously in favor of a state-supported pediatrics center at Herrin Hospital. The state-subsidized program would provide for consultation service by an expert from the University of Illinois College of Medicine. The six counties represented as favoring the proposal are Williamson, Perry, Franklin, Union, Jackson and Randolph counties.

WINNEBAGO COUNTY

Society News.—Dr. Stewart C. Cull, head of the department of anesthesiology, State University of Iowa College of Medicine, Iowa City, addressed the Winnebago County Medical Society, March 11, on "Newer Technics in Anesthesia."

Personal.—Dr. Marshall O. Alexander became staff pathologist at Rockford Memorial Hospital recently, succeeding the late Dr. W. W. Bissell. Dr. Alexander graduated at the University of Cincinnati College of Medicine in 1938 and served an internship at Miami Valley Hospital, Dayton, Ohio, and a residency in pathology at Cincinnati Gen-

eral Hospital. He also was assistant resident and resident pathologist at Henry Ford Hospital, Detroit. For the past three years Dr. Alexander has been pathologist at Blodgett Memorial Hospital, Grand Rapids, Mich.—Effective February 1, Dr. William H. Brown, was appointed roentgenologist at Rockford Memorial Hospital. Following his graduation at Northwestern University Medical School in 1940, Dr. Brown served an internship at St. Luke's Hospital, Chicago, from 1942 to January 1944. While holding a fellowship at St. Luke's, he was also assistant roentgenologist at Ravenswood Hospital, Chicago. In January 1944 he joined the medical corps, Army of the United States. At the Rockford Memorial Hospital he will direct roengenology diagnosis and therapy.

GENERAL

Advisory Committee Named to Hear Clemency Pleas.—Governor Dwight Green on March 20 named an eight man advisory committee to join the state division of corrections in clemency hearings for Illinois prison inmates who participated in malaria treatment experiments, newspapers report. Dr. Andrew C. Ivy, Chicago, Vice President of the Chicago Professional Colleges of the University of Illinois, was named chairman of the advisory committee. Other members of the committee include Dr. Robert S. Berghoff, Chicago, Immediate Past President of the Illinois State Medical Society, and Dr. Morris Fishbein, Editor of The Journal of the American Medical Association, Chicago.

Carlson and Ivy Again Head Research Society.—Dr. Anton J. Carlson and Dr. Andrew C. Ivy were reelected president and secretary-treasurer, respectively, of the National Society for Medical Research during a recent meeting of the board of directors of Chicago.

Humane Officers Accused of Violating Constitutional Guarantees.—The stopping of a truckload of dogs by an antivivisection leader armed with the authority of a humane officer was the cause of a court charge in Chicago recently. According to the Bulletin of the National Society for Medical Research, the man illegally searched the truck and placed trumped-up charges. The case was summarily dismissed in court. As a result, the Chicago Scientific Society will seek the dismissal of humane officers who violate constitutional guarantees against unfounded search and seizure.

Physician and Dentist Legislators.—In the present 80th Congress there are eight physicians and two dentists, one more physician and one less dentist than the 79th Congress. As a result of an inquiry it was learned that in thirty state legislatures there are fifty-three physicians and sixteen dentists, while eighteen states report no physicians or dentists in their legislatures. Eighteen states have but one physician, while nine have two physicians serving this year, and three have four, five and six respectively. The governor of Idaho, Dr. C. A. Robbins, Boise, is a physician, and the governor of Wyoming

is a dentist, Lester C. Hunt, D.D.S. Twelve states have one or two dentist legislators. One legislator holds a degree of D.D.S. as well as that of M.D.

W. P. Shahan Honored.—Mr. W. P. Shahan, executive secretary of the Illinois Tuberculosis Association, who served as executive secretary of the Medical Advisory Board number 39, downstate section tuberculosis division, Illinois Selective Service, during World War II, has been presented with the Selective Service Medal and Certificate of Merit.

Diphtheria Deaths Increase.—Diphtheria deaths totaled thirteen in 1946 as compared with six in 1945, according to the Illinois Department of Public Health. The figures are reported for children under 5 years of age. The nine deaths among children 5 to 14 were three more than for those ages during 1945. An increase was also noted in diphtheria among adults, with 9 deaths in persons 15 years and over in 1946 as compared to three the previous year.

Society News.—Dr. Andrew C. Ivy, Vice President, Chicago Professional Colleges, University of Illinois, discussed "Appetites" before the thirty-eighth annual meeting of the Illinois Society for Mental Hygiene, March 20. The paper was presented as "A contribution to mental hygiene from a physiologic point of view." Ronald P. Boardman, president of the society, presided, and Dr. Rudolph G. Novick, medical director, spoke.

HEALTH DEPARTMENT ACTIVITIES

Counties Without Hospitals.—The Illinois State Health Department, on completing a survey which included a study of 686 hospitals and nursing homes in Illinois, reports that 52 of the 102 counties in Illinois have no hospitals or have hospitals "in name only" without adequate modern facilities. Baxter K. Richardson, Springfield, senior administrative officer, said the survey showed that the southern part of the state had the greatest deficiency in hospital facilities, with twenty-eight counties having no hospital of any kind and twenty-four lacking institutions which could be classified as hospitals.

Committee on Purchase of Hospital Care.—Dr. Roland R. Cross, director of the Illinois Department of Public Health, Springfield, has appointed an eleven man technical advisory committee on the purchase of hospital care, which will serve certain governmental agencies. The hospital accounts analyst service in the division of maternal and child hygiene will assume the responsibility for collecting and approving hospital cost analyses for these government agencies, which are the Division of Maternal Care and Child Hygiene (with EMIC and premature programs), the Division of Communicable Diseases (with the ophthalmia programs), the Division of Services for Crippled Children, Vocational Rehabilitation and the Illinois Public Aid Commission.

Dr. Tripodi Named to Reorganized Health Unit. Dr. Donald W. Tripodi, once medical director of

the Tuberculosis Sanatorium at Pontiac, has been appointed health officer of the Alexander-Pulaski Bi-County Health Department, effective February 1. The health department, with headquarters at Cairo, was permanently established by popular vote Nov. 5, 1946, when seventeen counties voted in favor of county or multiple county health departments. Mrs. Emma Jennings, Cairo, is public health nurse of the new unit and Mr. Ralph Gibson, Cairo, sanitarian.

New Division Chief.—Dr. Leonard Schuman has resigned from the U. S. Public Health Service to become chief of the division of venereal disease control in the Illinois Department of Public Health, Springfield. Dr. Schuman graduated at Western Reserve University School of Medicine, Cleveland, in 1940. From August 1941 to July 1943 he was district health superintendent in the state department of health, with headquarters at Woodstock. He then served as assistant chief of the division of local health administration in the department with headquarters in Springfield, resigning in August 1945 to join the U. S. Public Health Service.

Health Officer Resigns.—Dr. Cecil A. Z. Sharp has resigned as health officer of the Will County Health Department to become health officer of the St. Louis County Health Department, Clayton, Mo., and assistant professor of preventive medicine at Washington University School of Medicine, St. Louis, effective April 1.

"For The Common Good"

This is a new column. Someone had an idea, someone else named it—but everyone is eligible to contribute. Its objective is rather vague. We'd like the contents to shape themselves. In this issue we'd like to start the column with sidelights on society activities which are "for the common good."

Dr. James H. Hutton, chairman of Educational Committee and the Committee on Medical Service and Public Relations, recently inaugurated regular monthly meetings to which he invites guests from other committees. The session March 8 was a successful one, both from the point of attendance and the amount of work accomplished. In particular, new impetus to the Summer Round-Up of the Illinois Congress of Parents and Teachers was achieved. Dr. Charles P. Blair, Monmouth, a member of the Educational Committee, was named chairman of the new subcommittee to direct a working arrangement with the Illinois Congress of Parents and Teachers. The result was the adoption of a resolution at a meeting in Springfield, the first out of Chicago in a long time, and resultant publicity in the press and over the air. County medical societies are appointing committees to work with

the PTA in the handling of Summer-Round Up examinations.

Dr. Chauncey Maher, chairman of the Medical Economics Committee, is reviving the activities of his committee to include a new series of brief articles on the economics of medicine.

To Dr. Earl H. Blair, chairman of the Veterans Service Committee, goes credit for bringing about a successful Veterans' Service Dinner, May 12.

Right here is a good time to pay tribute to the doctors who serve on committees. It would be interesting sometime to add up the many hours devoted to society activity. The interest, the honest discussion and resultant actions show zealous attention toward the building of a good society.

Just before hopping off to Cuba on a delayed vacation, Dr. Robert S. Berghoff, outgoing President of the Illinois State Medical Society, turned in all the annual reports for which he is responsible.

Dr. Willard O. Thompson flew from Atlanta to East St. Louis to give his talk for the Postgraduate Conference; then to Chicago to attend the meeting of his North Side Branch and then back to Atlanta; all in the space of about twenty-four hours.

Lectures Arranged for Scientific Service Committee

"Management of Respiratory Emergencies" was the title of an address by Dr. Ford K. Hick, Chicago, before the McLean County Medical Society in Bloomington, April 8.

Dr. Harry Mock, Jr., Chicago, addressed the Will-Grundy County Medical Society in Joliet, April 10, on "Refrigeration in Surgery."

The Livingston County Medical Society was addressed in Pontiac, April 17, by Dr. Meyer Brown, Chicago, on "Recognition and Treatment of Mild Depressive States."

Dr. John Huffman, Chicago, addressed the Will-Grundy County Medical Society, April 24, on "Dyspareunia."

Lectures Arranged by Educational Committee

Dr. Alfred D. Biggs, Chicago, addressed the St. Matthew's Parent-Teacher Association in the School Hall, Chicago, April 21, on "Problems of Parents."

Dr. Josiah J. Moore discussed "Health, the School and Home" before the Trumbull School Parent Teacher Association, April 7.

Dr. Charles E. Stepan addressed Main Street School Parent-Teacher Association in Glen Ellyn, April 14, on "Leisure and the Child."

Dr. Franklin Fitch, Chicago, discussed "Successful Marriage" before the North Austin Methodist Church Group, March 28.

Dr. Paul B. Rabenneck, Nashville, addressed the Federated Women's Club, Mount Vernon, April 15, on "Superstitions and Fallacies About Health."

Dr. William W. Bolton, Assistant Director, Bureau of Health Education, American Medical Association, discussed "An Ideal Health Program for Children" before the Ivanhoe Parent Teacher Association at the Roosevelt School, Dolton.

Mr. John Mannix, Chicago, addressed the Bev-

erly Hills Non-Partisan Organization, April 20, on "Voluntary Health Insurance."

MARRIAGES

FRANZ STEFAN STEINITZ to Miss Jeanne Ann Sonnenschein, both of Chicago, in Glencoe, Ill., Dec. 15, 1946.

HARRY MICHAEL SIEGEL, Chicago, to Miss Nita Alice Eisenberg, of Winnetka, Dec. 22, 1946.

IRVING A. KATZ to Miss Helen Louise Klein, both of Chicago, January 26.

DEATHS

STEPHAN EDWARD DONLON, Chicago, who graduated at Rush Medical College in 1895, and who served on the staff of St. Anthony de Padua Hospital, died January 6, aged 82 of cerebral hemorrhage.

ADOLPH J. FOERTER, Peoria, who graduated at Bennett Medical College, Chicago, in 1901, died in the Methodist Hospital there Dec. 17, 1946, aged 71, of cerebral thrombosis. Dr. Foerter had been a member of the associate medical staff, serving also as president of the staff.

HANNIBAL CLAUDE FORTUNE, Payson, who graduated at St. Louis University School of Medicine in 1905, died January 4, aged 74, of coronary thrombosis. He had been a veteran of the Spanish-American War.

JAMES GRIFFIN GALLAGHER, Chicago, who graduated at Loyola University School of Medicine in 1932, died in the Holy Cross Hospital, Dec. 22, 1946, aged 40.

GEORGE RICHARD HAYS, Marissa, who graduated at the Beaumont Hospital College, St. Louis, in 1896, died Dec. 7, 1946, of heart disease.

JOHN H. McNUTT, Hammond, who graduated at the Missouri Medical School, St. Louis, in 1895, and who had served as Piatt county coroner for many years, died March 12th, aged 77.

THOMAS JOSEPH MORAN, Alton, who graduated at the Chicago Medical School in 1931, died in the Alton Memorial Hospital where he was also a member of the staff, Dec. 14, 1946, aged 48, of cerebral hemorrhage. He was also affiliated with St. Joseph's Hospital.

DANIEL E. MURPHY, Chicago, who graduated from Northwestern University Medical School in 1900 and who had practiced medicine for 45 years, died in Alexian Brothers Hospital, March 21, aged 78.

WILLIAM LIGHTFOOT POWELL, Palmyra, who graduated at Bennett Medical College, Chicago, in 1897, died in the Macoupin Hospital, Carlinville, Dec. 25, 1946, aged 86, of cerebral hemorrhage.

CHARLES EDWARD REMY, Chicago, who graduated at the University of Nebraska College of Medicine, Omaha, in 1910, died in the Wesley Memorial Hospital, Dec. 16, 1946, aged 65, of coronary thrombosis.

HUGH ROBERT SCHOFIELD, Chicago, who graduated at Hahnemann Medical College and Hospital, Chicago, in 1901, died in Los Angeles, January 12, aged 71.

ELMER WOLFRED SEABURG, Peoria, who graduated at the Chicago College of Medicine and Surgery, in 1917, and who was affiliated with the Methodist Hospital there, died in the Veterans Administration Hospital, Danville, Nov. 9, 1946, aged 54.

WAYNE PULLEY SIRLES, Herrin, who graduated at the University of Illinois College of Medicine, Chicago, in 1938, and who was a specialist certified by the American Board of Otolaryngology, died Dec. 11, 1946, aged 34, of coronary occlusion. He has been on the staff of Herrin Hospital and formerly a member of the staff at Washington University School of Medicine, St. Louis.

EUGENE AARON SPITZ, Chicago, who graduated at Northwestern University Medical School, Chicago, in 1906, died Dec. 28, 1946, aged 64.

CLAUDE ADAMS STEARNS, Alto Pass, who graduated at Barnes Medical College, St. Louis, in 1911, died in Anna Dec. 2, 1946, aged 61 of pneumonia.

FRANK A. WILEY, Earlville, who graduated at Rush Medical College, Chicago, in 1888, died January 8, aged 80, of cerebral hemorrhage and pneumonia. He had been a member of the school and library board for many years.

JOHN CARROLL WALTERS, Springfield, who graduated at the Marion-Sims College of Medicine, St. Louis, in 1895, and who was a past president of the Sangamon County Medical Society, died in Miami, Fla., Dec. 29, 1946, aged 74 of cerebral hemorrhage, hypertension and heart disease.

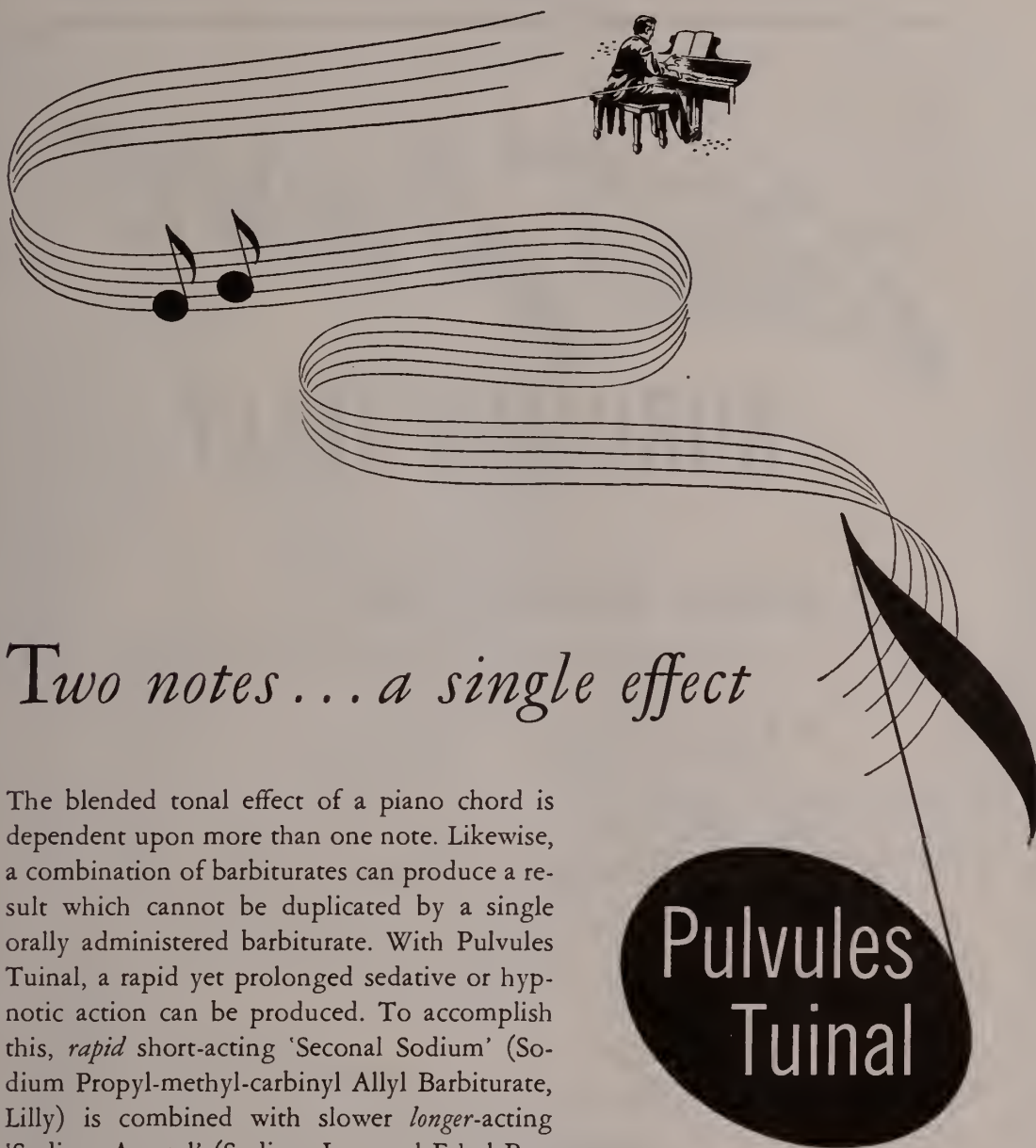


A. M. A. MEMBERSHIP HITS PEAK

IN 1947

The American Medical Association has 131,590 members and 72,243 Fellows as of March 1, 1947. To qualify as a Fellow, a doctor must be a member in good standing of the A. M. A., graduate of a recognized medical school, pay

Fellowship dues and subscribe for *The Journal*. Formal application must be made to the Judicial Council for approval. Only those members who qualify as Fellows are eligible for election as officers, may serve as members of the House of Delegates, may register at the annual sessions of the Association or may participate in the work of its scientific sections.



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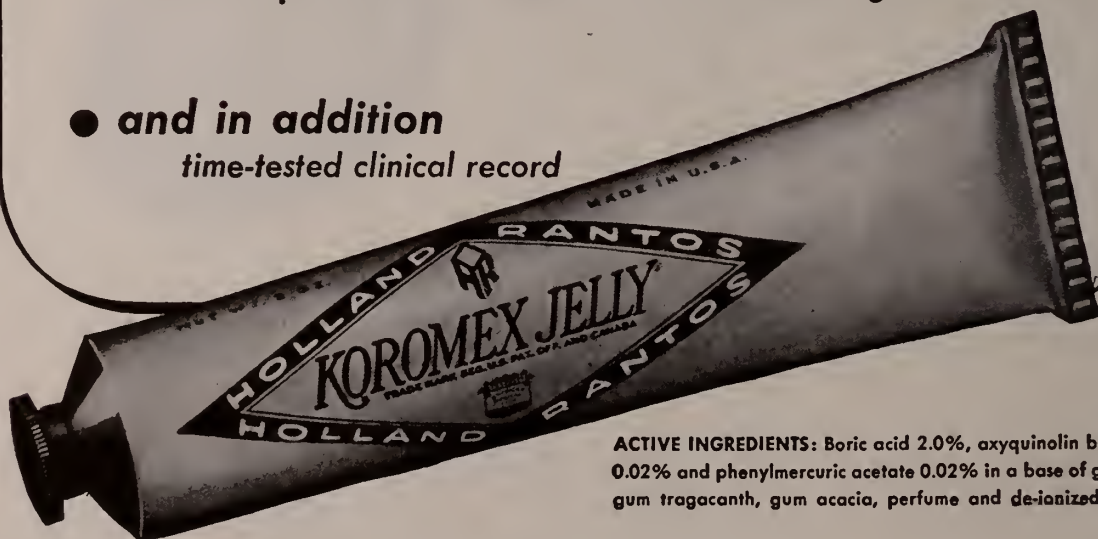
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pH consistent with that of the normal vagina
- **and in addition**
time-tested clinical record



ACTIVE INGREDIENTS: Boric acid 2.0%, oxyquinolin benzoate 0.02% and phenylmercuric acetate 0.02% in a base of glycerin, gum tragacanth, gum acacia, perfume and de-ionized water.

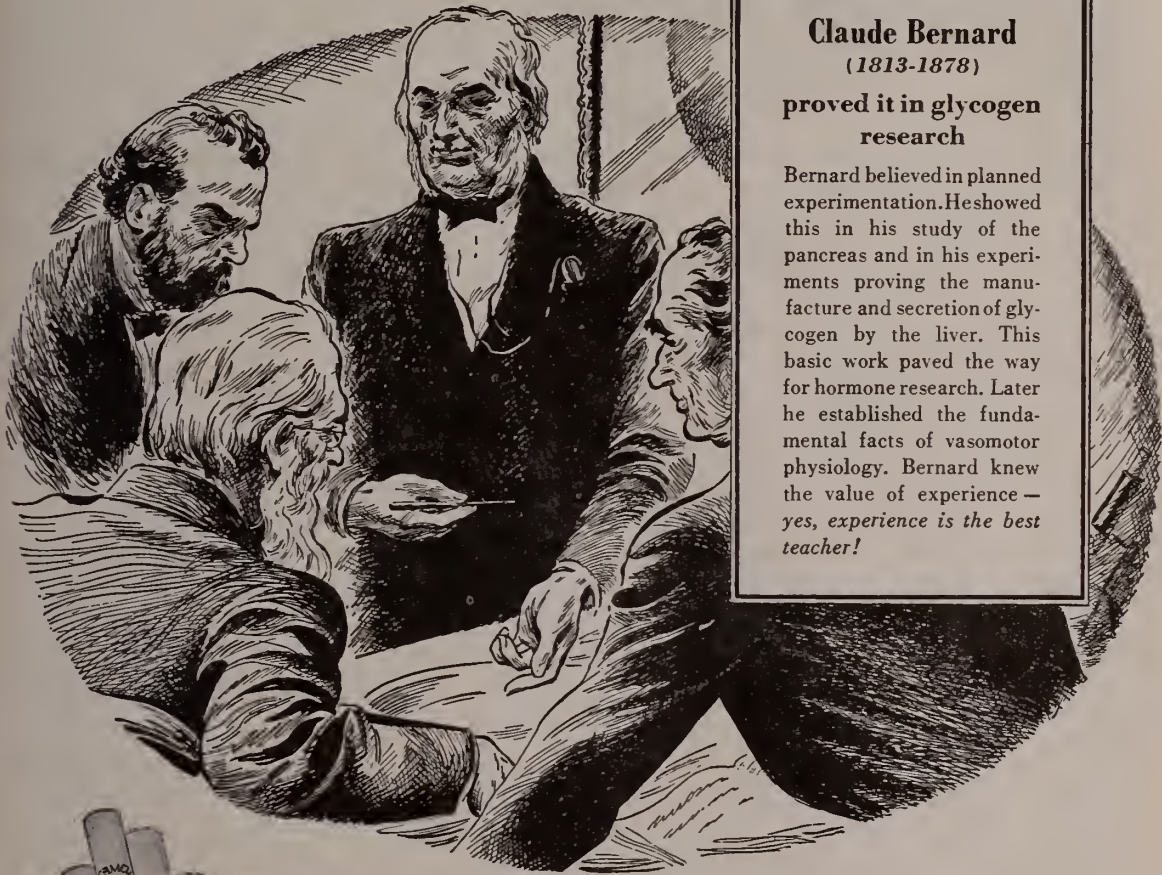


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Experience is the Best Teacher



Claude Bernard

(1813-1878)

**proved it in glycogen
research**

Bernard believed in planned experimentation. He showed this in his study of the pancreas and in his experiments proving the manufacture and secretion of glycogen by the liver. This basic work paved the way for hormone research. Later he established the fundamental facts of vasomotor physiology. Bernard knew the value of experience — yes, *experience is the best teacher!*



Yes, and experience is the best teacher in smoking too!



THAT wartime cigarette shortage was a real experience to smokers. Millions of people smoked more different brands than they would normally try in a lifetime. And out of the comparisons of that experience so many more smokers came to prefer Camels that today more people are smoking Camels than ever before.

We don't tamper with Camel quality. Only choice tobaccos, properly aged, and blended in the time-honored Camel way, are used in Camels.

According to a recent Nationwide survey:

MORE DOCTORS SMOKE CAMELS

than any other cigarette

When Nitrogen Balance Must Be Restored

In the correction of protein insufficiency, or in the maintenance of nitrogen balance, accumulating evidence substantiates the dictum that hydrolyzed protein substances should be employed *only* when oral feeding of protein foods is impossible or not feasible.

It has been shown experimentally¹ when hydrolysates of protein are injected at two different rates (1.0 and 1.5 mg. of nitrogen per Kg. of body weight per minute), the more rapid injection rate results in a higher excretion of both free amino acids and peptides. The authors ventured that even in the presence of a definite demand for protein replenishment, nitrogen excretion is mainly controlled by the kidney threshold.

In a recent survey, Ravdin² stated that "When oral feeding is used, whole foodstuffs should be given. There is no beneficence in feeding protein hydrolysates unless there is evidence of faulty digestion. Feeding of mixtures of polypeptides and amino acids may result in an absorption rate of amino acids which is more rapid than can be resynthesized by the liver, especially when the function of this organ is not normal."

When protein foods are ingested, the contained amino acids are released slowly and in a sustained manner during the course of the digestive processes. The absorptive capacity of the intestinal mucosa is not overtaxed, and maximal amino acid utilization is made possible without urinary loss.

As a source of protein, meat ranks high among the foods of man. It is 96 to 98 per cent digestible, and its protein is biologically adequate, capable of satisfying every protein need of the organism.

1. Editorial: J.Am.Dietet.A., 22:1063 (Dec.) 1946.


2. Ravdin, I.S.: Some Problems of Protein Deficiency, Connecticut M.J., 11:7 (Jan.) 1947.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.



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CALM, RESTFUL SLEEP • FRESH AWAKENING

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For the Patient's *Sense of Well-Being*

Few are the clinical conditions in which the luxury of enjoying candy appears contraindicated.

During convalescence when appetite so often lags or become capricious, and the complaint is voiced that "nothing seems to taste good," candy as a rule is eaten with gusto, and appears doubly worth while. It presents high caloric value in small bulk and is easily digested—furthermore, it is gratifying to note the psychic lift given the patient by even a small piece of candy.

Within the dietary framework permitted, candy—while contributing to the essential carbohydrate needs—also provides a delightfully satisfying diversion for the diabetic patient who is faced by dietary limitations.

Thus, though the small amounts of nutrients supplied by one or two pieces of candy may not be significant in the dietary regimen, the sense of well-being engendered by candy merits recognition in the light of the over-all clinical picture.



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MINIMIZES GASTROINTESTINAL DISTRESS

Gastrointestinal distress attributable to the presence in the intestinal tract of excessive amounts of readily fermentable sugars can be minimized by specifying CARTOSE* as the mixed carbohydrate to be used in modifying milk for infant feeding formulas.

CARTOSE supplies balanced proportions of nonfermentable dextrans in association with maltose and dextrose, thus providing spaced absorption.

Its content of dextrans favors the development of a preponderant beneficial acidophilic intestinal flora.



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Mixed Carbohydrates

Available in bottles containing 1 pt. through recognized pharmacies only.

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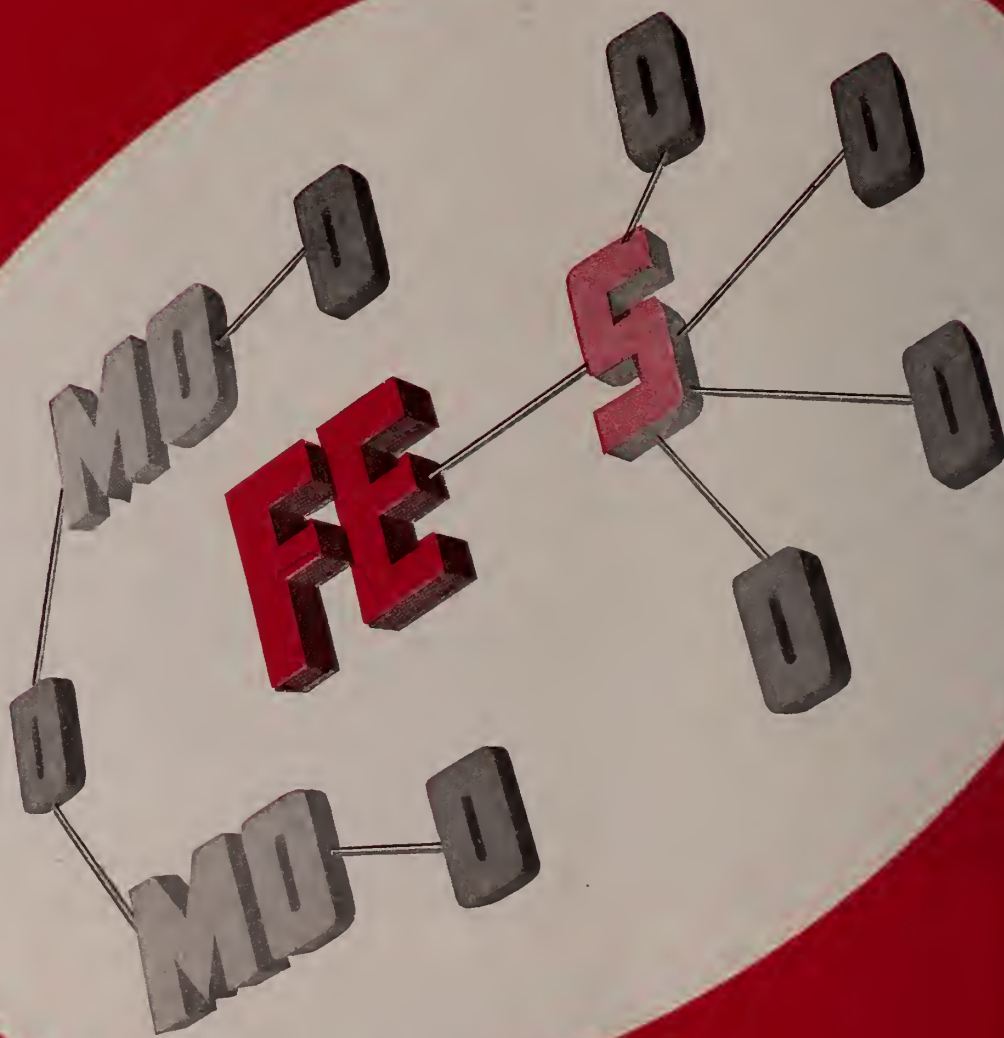
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demonstrably superior



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LABORATORIES, INC., Pharmaceutical Manufacturers, Newark 3, N. J.

iron utilization in hypochromic anemias

Controlled clinical studies conducted on patients with hypochromic anemia reveal the therapeutic superiority of molybdenized ferrous sulfate over equivalent dosages of ferrous sulfate alone:

MORE RAPID RECOVERY—Normal hemoglobin values are restored more rapidly, increases in the rate of hemoglobin formation being as great as 100% or more in patients studied.

INCREASED UTILIZATION—Iron utilization is similarly more complete.

BETTER TOLERANCE—Gastrointestinal tolerance is excellent—even among patients who have previously shown marked gastrointestinal reactions following oral administration of other iron preparations.*

White's Mol-Iron is a specially processed, co-precipitated complex of molybdenum oxide 3 mg. (1/20 gr.) and ferrous sulfate 195 mg. (3 gr.). Bottles of 100 and 1000 tablets.

*Healy, J. C.: Hypochromic Anemia: Treatment with Molybdenum-Iron Complex, *The Journal-Lancet*, 66:218-221 (July) 1946.



Mol-iron

Tablets

(Molybdenized Ferrous sulfate)

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THE SPENCERFLEX FOR MEN

Individually designed for each patient, the Spencerflex provides pelvic control and abdominal uplift with freedom for muscular action. Improves posture and body mechanics. Non-elastic. Will not yield or slip under strain. Very durable, moderate cost. Can be put on, removed, or adjusted in a moment.

Also designed as adjunct to treatment following upper abdominal surgery. Completely covers and protects scar without "digging in" at lower ribs. Relieves fatigue and strain on tissues and muscles of wound area. We know of no other support for men providing these benefits.

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FOR ABDOMEN, BACK AND BREASTS

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May We
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P. R. N.

The Jocular Jingles of C. G. F.
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Charles G. Farnum M. D.
Peoria, Ill.

CHILDREN

I see the children going home from schools,
Right happily they play and sing and dance,
I wonder, as I contemplate life's rules,
How many of these children have a chance.

I look at laughing eyes and towsie heads,
Today each soul may sing its merry song,
But which are scrubs and which are thoroughbreds,
And which ones are the weaklings, which the strong.

The handicap of heritage they bear,
Will make some lives a long and dreary path
Of mediocrity and dull despair.
Embittered youth with grief its aftermath.

What chosen few will feel ambitions urge,
Which ones of them attain a leader's part,
And up above the common herd emerge,
While other lives are stifled ere they start.

Among them which will taste of sweet success,
Which one is doomed a social parasite,
Which rare ones will the world acclaim and bless,
Which ones society destroy or blight.

I meditate on life's complexities,
On constant struggles, battles, bitter strife,
The problems and the deep perplexities —
How many children have a chance in life?

(Continued on page 60)

SPENCER SUPPORT SHOP

55 E. Washington St., Suite 1216, Chicago 2

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Individually Designed Supports
For

Men, Women and Children
At

Shop or Hospital by Appointment

Spencer Individually Designed Supports



You know the importance of the psychological effect of tasty food!

When the patient is recovering from an illness, what can raise the spirits or help to speed the convalescence more than foods that *look* and *taste* delicious?

That's why Knox Gelatine is such a joy. It's so easy to make tempting dishes that tempt even a flagging appetite. So many different recipes to choose from: so many of them made with real fruits or real vegetables, flavored with their good,

natural juices. Patients are able not only to enjoy the fresh flavors but to benefit by the natural vitamins.

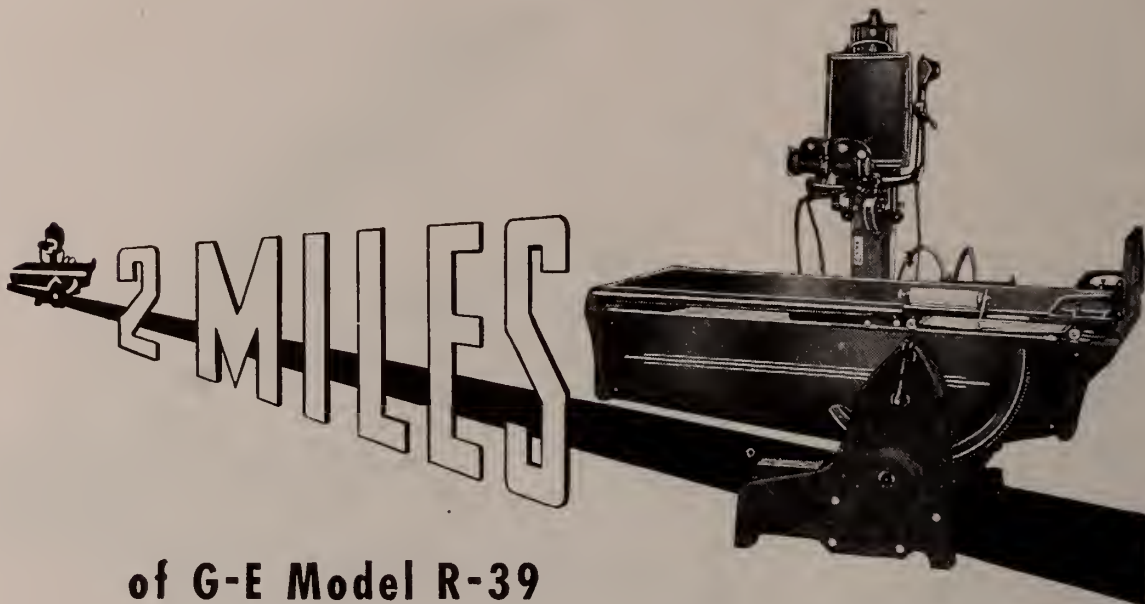
Knox Gelatine, unlike flavored gelatine powders which are $\frac{7}{8}$ sugar, artificially flavored and acidified, is all protein, contains no sugar.

FOR FREE BOOKLET, "Feeding the Patient," write to Knox Gelatine, Dept. 483, Johnstown, N. Y.

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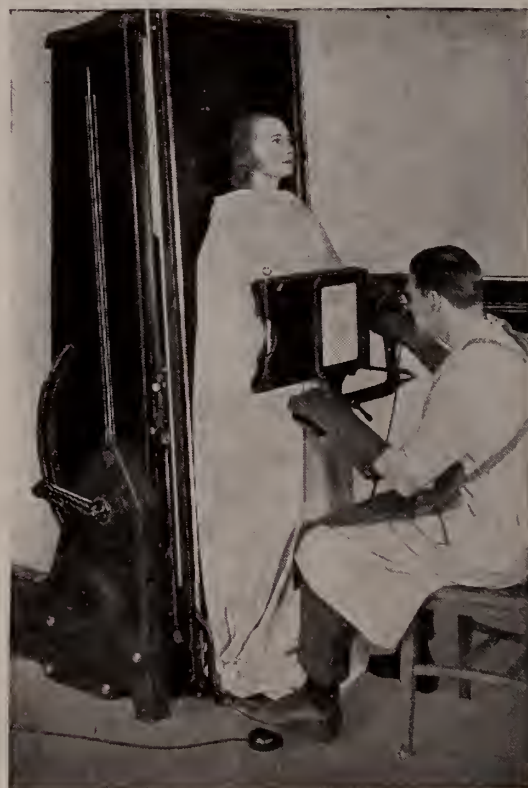
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Now in Service!**

If you can picture in your mind's eye a two-mile column of R-39 Units, placed end to end, you'll have a good idea of the popularity of this particular model, and the vast amount of diagnostic service it is rendering daily in the offices of specialists, and in clinics and hospitals everywhere.

Why the R-39's great popularity?

1. It is an all-round diagnostic unit, yet is so compactly designed that it can be accommodated in a small floor space.
2. Has ample power (100 ma. and 85 kvp) for general radiographic and fluoroscopic diagnosis.
3. Its unusual flexibility facilitates positioning of the patient vertically, angularly, or horizontally.
4. Its double-focus genuine Coolidge tube serves both over and under the table.
5. The simple-to-operate, refined control system assures a consistently fine quality of work.

You, too, may find the Model R-39 ideally adaptable to your particular needs. Why not investigate, by writing today for complete information. Address Dept. 2616, General Electric X-Ray Corporation, 175 W. Jackson Blvd., Chicago 4, Ill.



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Determination of the osmotic pressure of SAL HEPATICA by dialysis demonstrates its "liquid bulk" action in the gut. Through the increase in fluid content, gentle pressure is exerted on the mucosal nerve termini to stimulate normal peristalsis toward laxation or catharsis.

The desired action of this balanced saline can be easily controlled by the physician through proper regulation of dosage. Economical. Speedy, thorough action throughout the entire canal.

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SYMBOLS
STAND
FOR ?**



DRUGS

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From man's earliest ages, the serpent is found in religious, medical and art symbolism. It enjoys many and varied connotations, some good, some evil. This particular serpent, with its tail in its mouth, symbolizes Eternity—time without beginning and without end.

The modern symbol of superior pharmacal service is the familiar Rexall sign. More than 10,000 independent, reliable drug stores throughout the country display this symbol. It means that prescriptions filled there will be compounded with the highest pharmacal skill, from pure, potent drugs. All Rexall drugs are laboratory-tested under the Rexall control system

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the characteristic response to Pyridium therapy

The prompt symptomatic relief provided by Pyridium is extremely gratifying to the patient suffering from distressing urinary symptoms such as painful, urgent, and frequent urination, nocturia, and tenesmus.

Pyridium, administered orally in a dosage of 2 tablets *t.i.d.*, will promptly relieve these symptoms in a large percentage of ambulant patients, thereby permitting them to pursue normal activities without undue discomfort.

Acting directly on the mucosa of the urogenital tract, this important effect of Pyridium is entirely local. It is not associated with or due to systemic sedation or narcotic action.

Therapeutic doses of Pyridium may be administered with virtually complete safety throughout the course of cystitis, pyelonephritis, prostatitis, and urethritis. • LITERATURE ON REQUEST •

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ANNOUNCING

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3,4-bis-(m-methyl-p-propionyphenyl) hexano

ORALLY POTENT SYNTHETIC ESTROGEN

Economic estrogenic therapy is now available to physicians without the hazards of patient discomfort and imperfect relief of menopausal symptoms.

OUTSTANDING ADVANTAGES

- Relieves menopausal symptoms promptly.
- Restores sense of well-being.
- Unpleasant reactions virtually unknown.
- Exceptionally economical.

Comprehensive clinical studies in outstanding medical centers attest the estrogenic potency and clinical dependability of Meprane. Prompt relief of menopausal symptoms was reported in a large series of cases, patients usually experiencing partial remission of symptoms during the first days of treatment. Unpleasant reactions are virtually unknown.

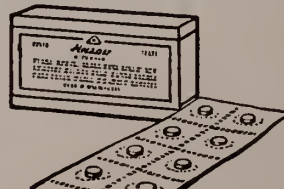
DOSAGE: In the menopause, initial therapy—3 tablets daily; maintenance therapy—1 to 2 tablets daily.

PACKAGING: Boxes of 30 and 100, 1 mg. (1-65 gr.) tablets, individually wrapped. Literature and samples on request.

Meprane • **FOR MENOPAUSAL WELL-BEING**

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RAPID Recovery...



*in pediatric **ANEMIAS***

The high palatability of BIRONEX SYRUP makes it a preparation uniquely suited for administration to children. Results with this iron-thiamine tonic are outstanding because of—

EXCELLENT TOLERANCE...small dosage in non-alcoholic taste-appealing vehicle.

SUPERIOR FE UTILIZATION...small molecule of a stable ferrous salt.

IMPROVED NUTRITION...appetite stimulation and better carbohydrate metabolism by its thiamine content.

EASY ADMINISTRATION...may be mixed with formulas or cereals, given in fruit or tomato juice, or from a spoon followed with a little water.

AVAILABLE AS SYRUP OR TABLETS

Formula: Each fl. oz. of syrup contains ferrous sulfate 16 gr., thiamine hydrochloride 6 mg., in a palatable syrup base.

Each tablet contains ferrous sulfate exsiccated 3 gr., thiamine hydrochloride 1 gr.

A. H. ROBINS COMPANY • RICHMOND 19, VA.

Ethical Pharmaceuticals of Merit... since 1878

BIRONEX

a Robins' Triumph

NEW... NATURAL VITAMIN D HIGHER POTENCIES, IMPROVED FORMULA

VI-SYNERAL VITAMIN DROPS

Now providing natural vitamin D from rich fish liver sources, and increased potencies of vitamins A and C... with pyridoxine and pantothenic acid added... Vi-Syneral Vitamin Drops is unexcelled as a multivitamin supplement for the infant's diet. NO INCREASE IN PRICE.

more than vitamins A and D alone

Each 0.6 cc. provides:

Vitamin A*	5000 U.S.P. Units
Vitamin D*	1000 U.S.P. Units
Ascorbic Acid (C)	50 mg.
Thiamine (B ₁)	1 mg.
Riboflavin (B ₂)	0.4 mg.
Pyridoxine (B ₆)	0.1 mg.
Niacinamide	5 mg.
Pantothenic Acid	2 mg.

*Natural vitamins A and D

CONTAINS NO ALCOHOL

In 15 cc. and 45 cc. packages
with dosage marked dropper.

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IMPROVED
FORMULA**



Write for sample
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Your Job—And Ours:



To Keep Mothers Smiling

Mothers smile with happiness when you help their babies to grow strong and healthy. We're glad to share a little of your respon-

sibility by providing Nestlé's Evaporated Milk—appreciated by the profession as a help in getting babies off to a fine start in life.

NESTLÉ'S



NESTLÉ'S MILK PRODUCTS, INC.
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Nestlé's Has the "Know-How" to Produce a Good Product

- For 75 years, Nestlé's milk products have been best known, most used for babies 'round the world.
- Nestlé's was the *first* evaporated milk fortified with 400 USP units of genuine Vitamin D₃ per pint.
- Nestlé's accepts milk only from carefully inspected herds. As further assurance of quality, rigid controls check Nestlé's Milk every step of the way. We even take the plant apart every day and wash it!

No wonder so many doctors recommend **NESTLÉ'S** Milk by name



The Diagnostic Family is Growing

A new member has been added to the ever-growing Ames Diagnostic Family. The name of the latest arrival is—Hematest.

Here are the 3 members of the group to date:

1. Hematest

Tablet method for rapid detection of occult blood in feces, urine and other body fluids. Bottles of 60 tablets supplied with filter paper.

2. Albutest

(Formerly Albumintest)

Tablet, *no heating* method for quick qualitative detection of albumin. Bottles of 36 and 100.

3. Clinitest

Tablet, *no heating* method of detection of urine-sugar.

Laboratory Outfit (No. 2108).

Plastic Pocket-size Set (No. 2106).

Clinitest Reagent Tablets (No. 2101) 12x 100's for laboratory and hospital use.

All products are ideally adapted to use by physicians, public health workers and in large laboratory operations.

*Complete information upon request.
Distributed through regular drug
and medical supply channels only.*

AMES COMPANY, Inc.
ELKHART, INDIANA

P.R.N. (Continued)

ANTIQUES

I have wandered about in New England,
I have driven her green mountain peaks,
But the thing that I found most amusing
Was the shopping for ancient antiques.

For the old pewter plates that are dented
And the Courrier-Ives are divine
While a ship lantern green and corroded
Or a four poster bed is a shrine.

There a broken down chair is a treasure
And a chipped or cracked teapot brings cheer,
And a Paisley, in holes is alluring
Or a battered brass candlestick, dear.

I was asked sixty bucks for a table
That had cost them two bits, I opine,
And a platter that came from a dime store
I was told, for six dollars, was mine.

It was so through a list that was endless
Through a list that to me was a hoax,
And the only old things not exploited
Were the kindly and gentle old folks.

It would seem just two things are essential
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There never is a hole in sock or stocking,
The meals are always perfect and on time,
The children never say a thing that's shocking,
The carpet is not tracked with mud or grime.

There never is a stair step that is squeaky,
The furnace don't go out and does not smoke,
No faucets out of order, none are leaky,
There never is a dish that someone broke.

Apparently there's nothing that could bother
The sweet tranquility of life; and yet,
Two things are always wrong — the clock and father,
In every modern household I have met.

LOONY LIMERICK

A young man possessing the knack
Of being left holding the ksack
Went in search of some dough,
Didn't know where to gouge,
So came home and sat on a ktack.

Physical Medicine

Abstracts

John S. Coulter, M.D.

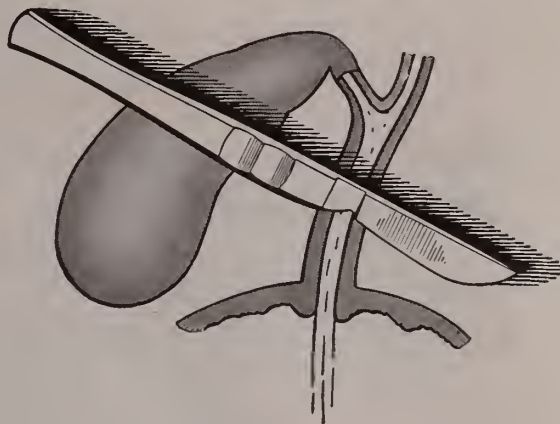
RHEUMATOID SPONDYLITIS: ITS GENERAL FEATURES AND MANAGEMENT

Edward W. Boland, M.D., Los Angeles
In CALIFORNIA MEDICINE, 65:6:285
December 1946

Rheumatoid (ankylosing) spondylitis is one of the important causes of chronic back disability in young adult males. When detected and treated during its early stages, much can be accomplished toward ameliorating the symptoms and in preventing deformity; and at times the disease may be arrested. Unfortunately rheumatoid spondylitis often remains unrecognized until after marked spinal rigidity ("poker spine") and pronounced calcification of the paraspinal ligaments ("bamboo spine") have occurred; at such a late stage little can be expected from preventive or corrective therapeutic procedures. With the hope of encouraging early recognition and early treatment of this potentially crippling disease a brief discussion of its general features and management is presented herein.

General measures: measures designed to improve general health are just as important in the treatment of spondylitis as they are in peripheral rheumatoid arthritis. Such measures should include a high caloric diet with vitamin supplements, iron salts if hypochromic anemia is present, and adequately regulated rest. Physical activity requiring undue use of the back should be curtailed routinely. Patients with disease of mild or moderate severity should have at least nine hours of bed rest at night and an additional one or two hours in bed during the day. Complete bed rest is rarely indicated; occasionally it is advised for patients with severe

(Continued on page 62)



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PHYSICAL MEDICINE (Continued)

rapidly progressive disease. Acetylsalicylic acid should be given at frequent intervals, if necessary, to control pain. Baking, massage, diathermy and other locally applied physiotherapeutic measures may at times be of help in giving symptomatic relief; occasionally they tend to aggravate the symptoms.

Prevention and correction of postural deformities: Much can be accomplished in preventing postural deformities with relatively simple exercises if these are carried out conscientiously day after day for a period of years. Patients should be made to understand that the supervised exercises performed at the hospital or physician's office are merely instruction periods: when instruction is completed the rest is up to the patient himself. When the disease is early or relatively early, great emphasis should be placed on making the patient posture conscious. He must be taught to assume a proper stance at all times, with the lower abdominal muscles pulled in, the thorax raised, the shoulders squared and the head back. In addition he must be taught trunk stretching exercises (in both the erect and supine positions), hamstring and calf stretching exercises, deep breathing exercises and exercises for the correction of special postural defects: these should be performed twice daily at home. Simple analgesics, such as acetylsalicylic acid, given 30 to 45 minutes beforehand, and/or a hot tub bath often allow such exercises to be accomplished more readily. The spondylitic patient should be instructed also in the use of a firm bed (with boards), without pillow and in the use of a blanket roll for spinal hyperextension. Such measures should be carried out as preventive therapy even though postural deviations are minimal or have not yet occurred.

REST VERSUS ACTIVITY IN THE TREATMENT OF A FRACTURE

George Perkins, M.C., M.Ch. Oxfr., F.R.C.S.

In *THE LANCET*, No. 6437

January 11, 1947

The advantages of encouraging activity of the limb are that rehabilitation can proceed hand in hand with bone repair, and that the harmful effects of splintage are minimised. Who nowadays finds it necessary to apply an Unna's paste bandage after the removal of a plaster for a

(Continued on page 64)

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INDICATIONS
FEB

PHYSICAL MEDICINE (Continued)
fractured tibia and fibula? Post-plaster swellings has disappeared from the practice of those who make their patients walk normally while wearing a plaster cast. We saw it in the old days when a patient pivoted along on a Bohler iron, for then he only used his hip muscles, the remainder of the leg being in a state of physiological rest — in other words, growing rusty.

MOVEMENT OF THE JOINTS

On this again, I believe, there is general agreement. All joints not immobilized by splintage should be moved actively by the patient. Since movement is so desirable, the splint should be shortened to its minimum so as to free as many joints as possible. This is not a popular recommendation, for a surgeon rises in the estimation of his patients according to the multiplicity and complexity of his apparatus. I have on more than one occasion lost a patient for not having applied a splint to a fracture.

MOVEMENT OF MUSCLES

If hitherto I have been half-hearted in my advocacy of activity, let me now be downright positive. As regards the muscles, it is to be rest or activity? Activity every time and all

the time. Muscle activity confers three blessings: (1) it promotes a normal circulation in the limb (nobody disputes this); (2) it preserves the extensibility of the muscles and so avoids joint stiffness (this I have already spoken about; and (3) it stimulates the formation of callus.

In the controversy on rest versus activity it must be apparent on which side my sympathies lie. It would be too much to hope that I have converted you to my point of view, but I shall be content if the next time any of you imposes a splint on a patient you pause a moment to ask yourself: "Why am I using this splint? What good will it do — and what harm?"

SURGICAL REFRIGERATION AND PRESERVATION OF TISSUE

Lyman Weeks Crossman, M.D., F.I.C.S.
and Frederick M. Allen, M.D., New York
In JOURNAL OF THE AMERICAN MEDICAL ASSN., 133:6:377
February 8, 1947

1. Experience to date continues to confirm the safety and benefit of refrigeration anesthesia.

2. Not only is this anesthesia by brief chilling
(Continued on page 66)

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PHYSICAL MEDICINE (Continued)
 advantageous for orthopedic and reconstructive operations, but also successful healing has been reported in limbs which have been refrigerated for a number of days or weeks. Besides clinching the harmlessness of the low temperature, these observations point the way to new developments in surgery.

3. Recent experiments define some limitations and also extensions of hypothermic treatment. They suggest uses of reduced temperature prophylactically in some operations involving shock and therapeutically, especially for burns.

A SIMPLE METHOD OF REMOVING EYELASHES BY ELECTROLYSIS

Jack S. Guyton, M.D., Baltimore
 In AMERICAN JOURNAL OF
 OPHTHALMOLOGY, 30:1:57

January 1947

The root of an eyelash may be destroyed by electrolysis without causing detectable scarring.

Novocaine is injected around the offending lash.

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SEVERE BURNS: CLINICAL FINDINGS WITH A SIMPLIFIED PLAN OF EARLY TREATMENT

Robert Elman, M.D., F.A.C.S., C.R. Merry, M.D.
 Celsus E. Beguesse, M.D., and
 Raphael Tisdale, M.D., St. Louis, Missouri
 In SURGERY, GYNECOLOGY AND
 OBSTETRICS, 83:2:187

August 1946

Early movement of the patient was encouraged and, unless the lower extremities were involved, the patient was urged to get up out of bed as soon after the dressings were applied as possible. If the lower extremities were involved, an attempt was made to get the patient into a wheel chair. When the upper extremities were involved it was obviously necessary to provide frequent nursing care in order to insure an adequate nutritional intake.

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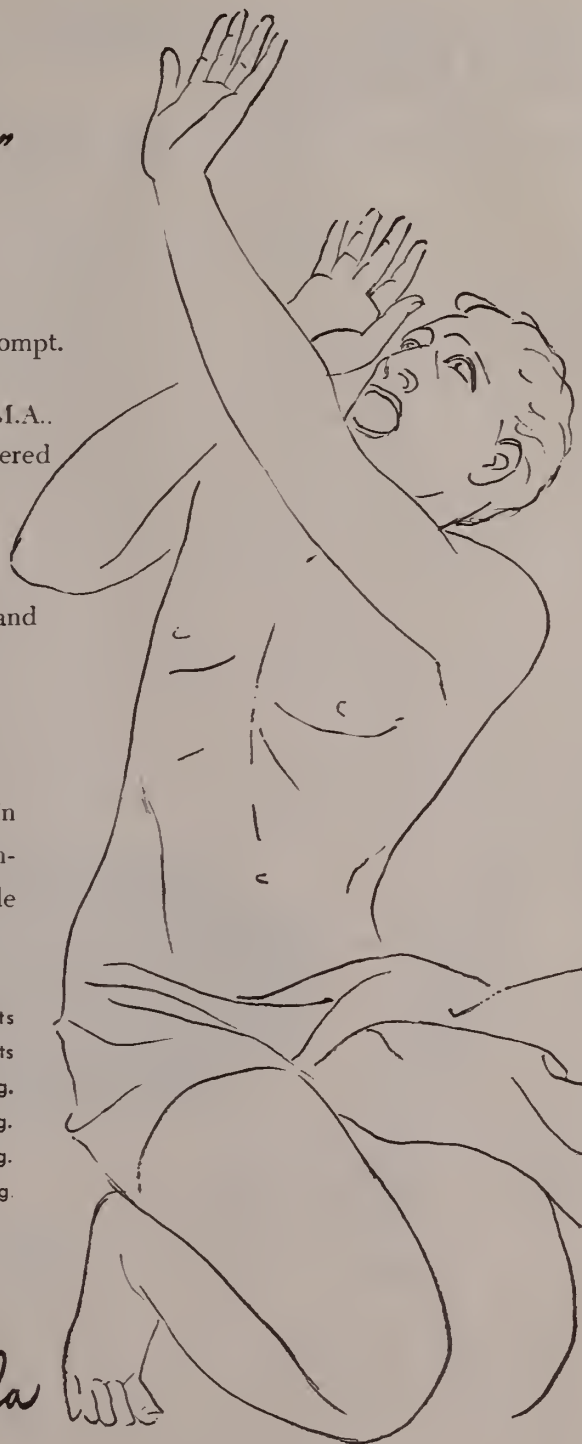
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1. Peters, J. P., and Elman, R.: J.A.M.A. 124:1206 (Apr. 22) 1944.
2. Council on Foods and Nutrition: J.A.M.A. 131:666 (June 22) 1946.

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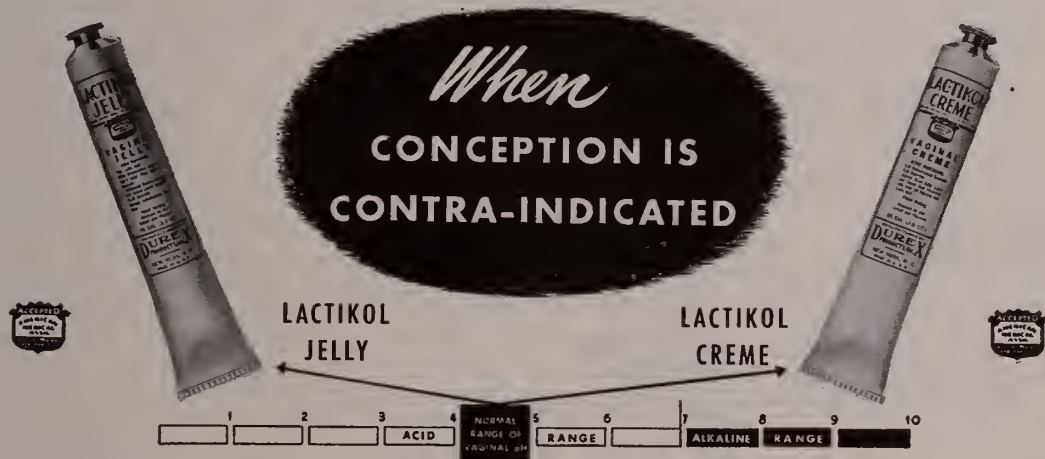
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Book Reviews

AN INTEGRATED PRACTICE OF MEDICINE: A Complete General Practice of Medicine from Differential Diagnosis by Presenting Symptoms to Specific Management of the Patient: By Harold Thomas Hyman, M.D., Volumes I, II, III, and IV, and Index. 1184 illustrations, 305 in color. 319 Differential Diagnostic Tables. Philadelphia and London: W. B. Saunders Company, 1947. Price \$50.00 per set. W. B. Saunders Company, Philadelphia, London.

The Integrated Practice of Medicine, as a complete text, has been written especially for the general practitioner. Even though the subject matter is published in four volumes, it well covers the field of medicine and the arrangement should appeal to the average reader. The author with his corps of Associate Editors endeavored to present their subjects in the same manner in which the patient presents his problems to the physician.

Throughout the text there are 318 tables of differential diagnosis by presenting symptoms and signs to aid the busy practitioner in his endeavor to make an accurate diagnosis in the case at hand. These tables are arranged so that in the left hand column appear the various conditions presenting the symptoms under consideration, while the right hand column contains the clinical manifestations and diagnostic features of each of the conditions under consideration. This ingenious

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BOOK REVIEWS (Continued)

arrangement will no doubt appeal to many readers who have access to the text.

Realizing the importance of laboratory findings, the various tests most applicable for the condition under consideration are given in sufficient detail to make it relatively easy for the physician to not only know what he needs, but how to do the tests with a minimum loss of time. Quite a little consideration is given to the discussion of treatment, and usually this is given as prophylactic treatment, specific treatment, and symptomatic treatment, with the technics of therapy summarized in much detail.

Although each section is actually presented as a complete text on the subject, the material is well integrated in such a way as to show the relationship to other organs and their various disturbances which may be also important factors especially from the standpoint of prognosis, as well as the desired therapy which seems to be indicated. The importance of anatomic and physiological studies in all diseased conditions is well brought out in the text.

In the section dealing with The Technics of Physical Diagnosis in volume IV there is much information which will be of great interest to the busy physician on the proper methods of history taking, the keeping of adequate records, and procedures to be followed

in making the physical examination. The latter is so arranged that the entire body is covered. Laboratory methods, the office laboratory and the usual laboratory procedures are well outlined in this portion of the text. Blood studies, including blood typing and matching as would be expected, are given a considerable amount of consideration.

An extensive section of Minor Surgery is likewise presented in Volume IV, giving the desired information concerning preparation, materials needed, anesthesia in minor surgery, and individual technics for the various procedures which are discussed. Many extensive and interesting tables likewise appear in this volume, including a large series of tables on Occupational Hazards and their diagnostic features, these being presented in three columns, first the occupation, second the hazard and third, the diagnostic features. Much informative data will be found in this section.

It is indeed most logical to assume that this four volume text will become very popular and should be included in the modern library, as well as in the office of all physicians who are in the general practice of medicine. The text is well illustrated with many of these in color. The author and his capable assistants have developed an idea which is not only unique, but entirely new in medical publications, and no doubt the popularity of the text will be assured within the near future.

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Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

PRINCIPLES AND PRACTICE OF OBSTETRICS: By Joseph B. DeLee, M.D., Late Professor of Obstetrics and Gynecology, the University of Chicago; Consultant man in Obstetrics, the Chicago Lying-in Hospital and Dispensary; and J. P. Greenhill, M.D., Attending Obstetrician and Gynecologist, The Michael Reese Hospital; Obstetrician and Gynecologist, Associate Staff, the Chicago Lying-in Hospital; Chairman Dept. of Gynecology, Cook County Hospital; Professor of Gynecology, Cook County Graduate School of Medicine. 9th Edition. 1011 pages; 1108 illustrations on 860 figures, 211 in color. Philadelphia and London: W. B. Saunders Company, 1947. Price \$10.00.

SYNOPSIS OF OPERATIVE SURGERY: By H. E. Mobley, M.D., F.A.C.S., Chief of Surgery at St. Anthony's Hospital, Morrilton, Arkansas. With 383 Text Illustrations Including 37 in Color. Second Edition.

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BOOKS RECEIVED (Continued)

St. Louis, The C. V. Mosby Company, 1947.

FUNDAMENTALS OF CLINICAL NEUROLOGY: By H. Houston Merritt, M.D., Professor of Clinical Neurology, College of Physicians and Surgeons, Columbia University; Chief of Division of Neuropsychiatry, The Montefiore Hospital; Fred A. Mettler, M.D., Ph.D., Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University; and Tracy Jackson Putnam, M.D., Professor of Neurology and Neurological Surgery, College of Physicians and Surgeons, Columbia University, Philadelphia, The Blakiston Company, 1947. Price \$6.00.

OBSTETRICAL PRACTICE: By Alfred C. Beck, M.D., Professor of Obstetrics and Gynecology, Long Island College of Medicine; Obstetrician and Gynecologist-

in-chief, Long Island College Hospital, Brooklyn. More than one thousand illustrations. Fourth Edition. Baltimore, The Williams & Wilkins Company, 1947. Price \$7.00.

UTEROTUBAL INSUFFLATION, A Clinical Diagnostic Method of Determining the Tubal Factor in Sterility Including Therapeutic Aspects and Comparative Notes on Hysterosalpingography; By I. C. Rubin, M.D., F.A.C.S., Clinical Professor of Gynecology, College of Physicians and Surgeons, Columbia University; Consulting Gynecologist, Mount Sinai Hospital; Visiting Gynecologist, Montefiore Hospital; Consulting Gynecologist, Beth Israel Hospital, New York. With 159 Illustrations Including 4 in Color. St. Louis, The C. V. Mosby Company, 1947.

HANDBOOK OF PHYSIOLOGY AND BIOCHEMISTRY: (Originally "Kirkes" and later "Halliburton's"). By R. J. S. McDowall, M.D., D.Sc., Professor of Physiology, University of London, King's College. The Blakiston Company, Philadelphia and Toronto. Price \$7.00.

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Although vaccination against tuberculosis with BCG (Bacillus Calmette Guerin) has never been unanimously accepted, there is increasing evidence that the procedure is of value, particularly in areas where tuberculosis is associated with a high mortality. J. D. Wassersug, M.D., N. E. Jour. Med., Aug. 15, 1946.

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The
ILLINOIS
Medical Journal

VOL. 51 * NO. 6

June, 1947

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The President's Address

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Electric Shock Therapy in
Office, Home, and General Hospital

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Cryptorchidism: Problems
in Surgical Treatment

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OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

PAVATRINE in dysmenorrhea

Dysmenorrhea in Industry —Treatment with a New Antispasmodic— F. A. VIGGIANO, M.D., Arnold, Pennsylvania

THE increased need for women in industry makes it imperative that the industrial physician give greater attention to illnesses which cause absenteeism among female employees. In a National Health Survey of 83 cities of the United States reported in 1941, the incidence of such illnesses among women between the ages of 15 to 64 years was 15.6 per cent.

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*Viggiano, F. A.: *Indust. Med.* 15:632 (Nov.) 1946.

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Entered as Second-Class Matter July 21, 1919, at the Post Office, Oak Park, Illinois, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1102, Act of October 3, 1917, authorized July 15, 1918. Office of Publication, 715 Lake Street, Oak Park, Ill.



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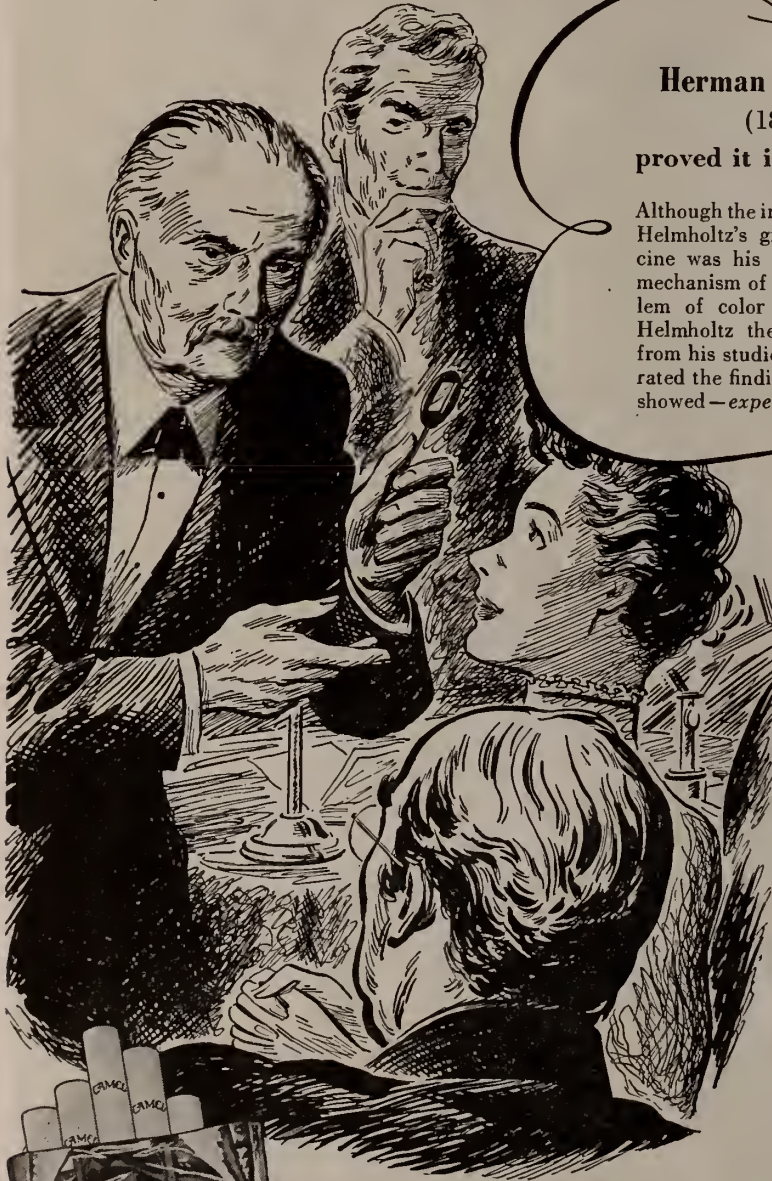
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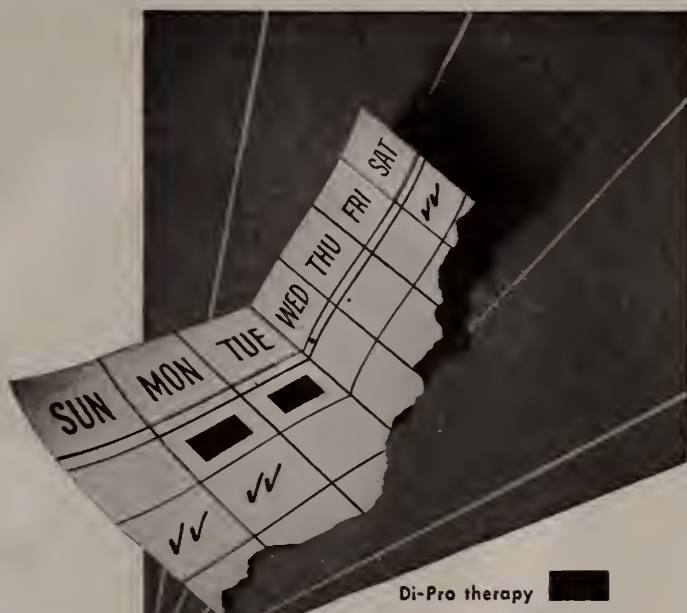
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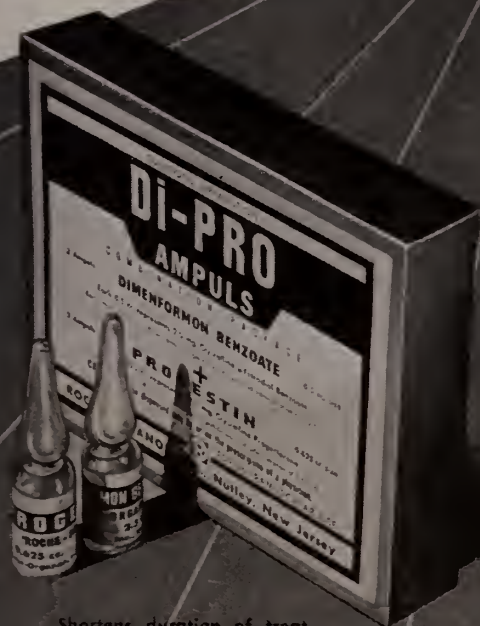
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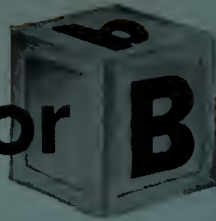
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*Marriott, W. McK.: Infant Nutrition,
3rd Edition, revised by Jeans, Mosby,
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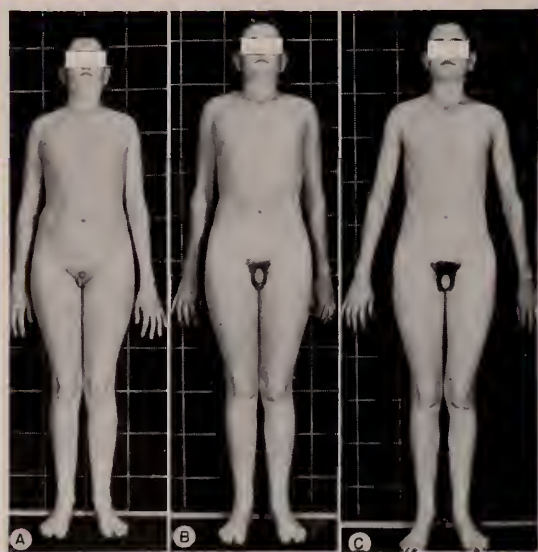
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1. Lisser, H., and Curtis, L. E.: *Jl. Clin. Endo.*, 3: 389 (July), 1943.

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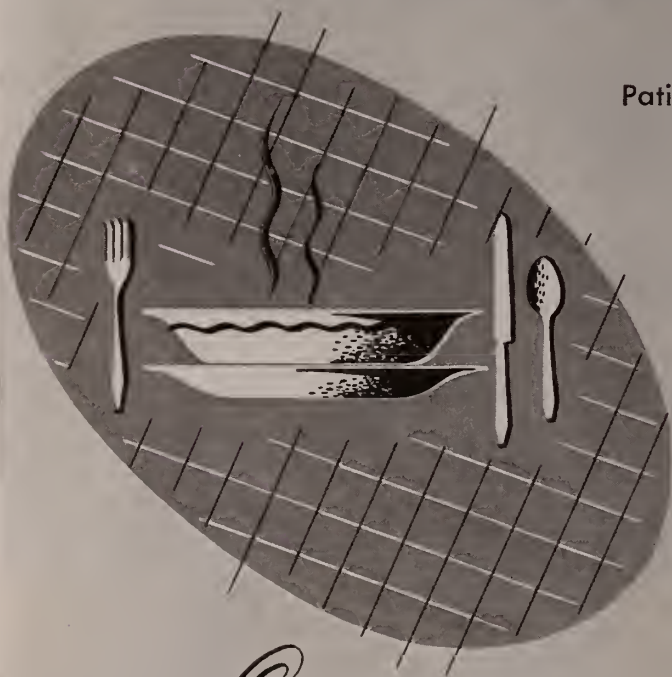
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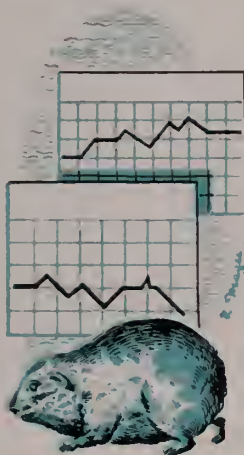
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Leader in the Study of Nutrition

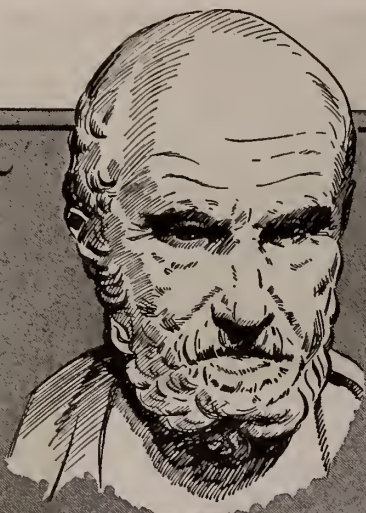
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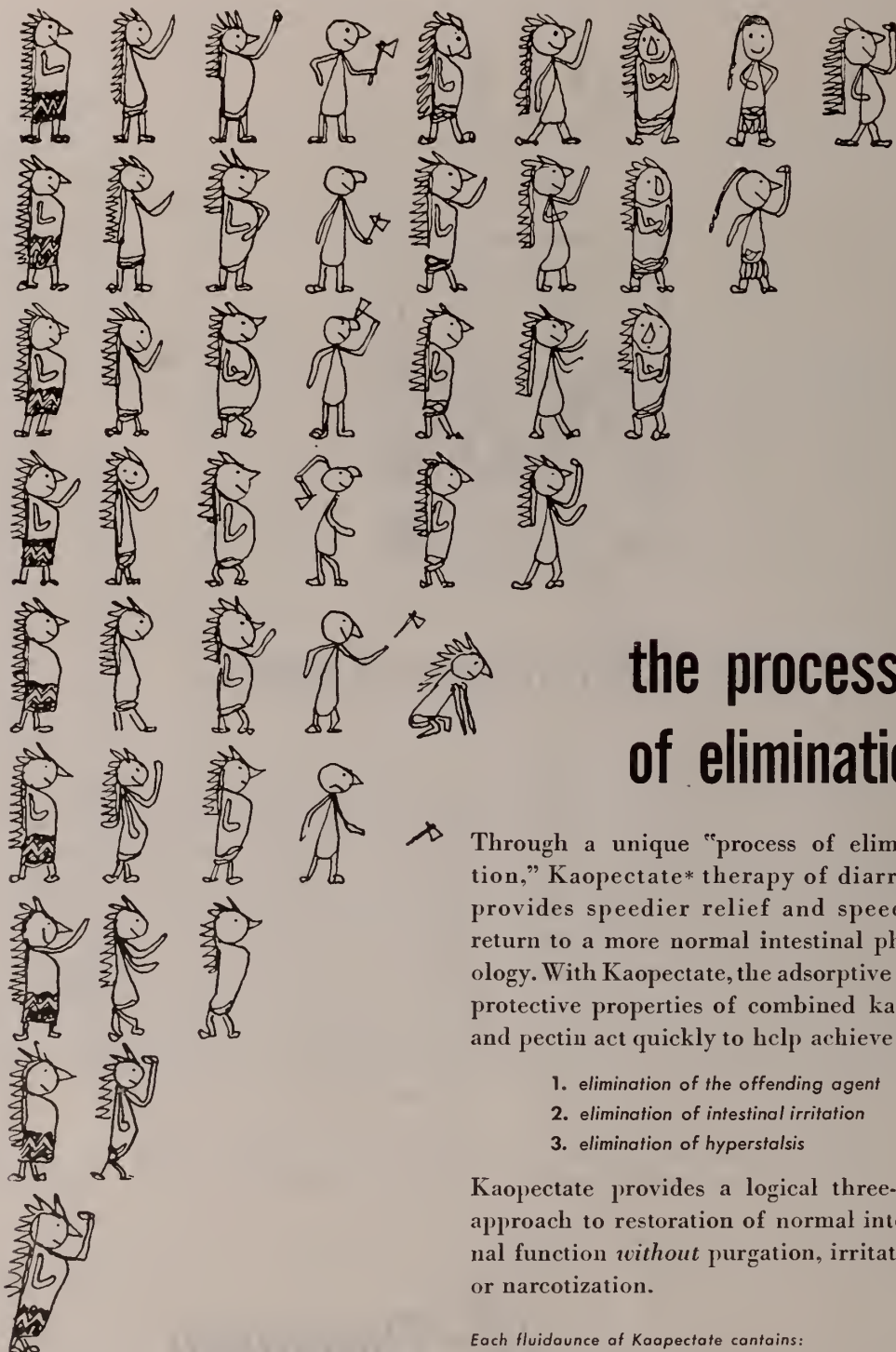
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*Editorial, J. A. M. A., 131:826, 1946.

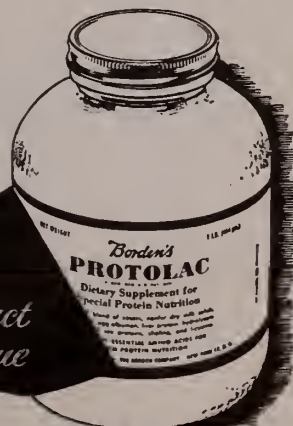
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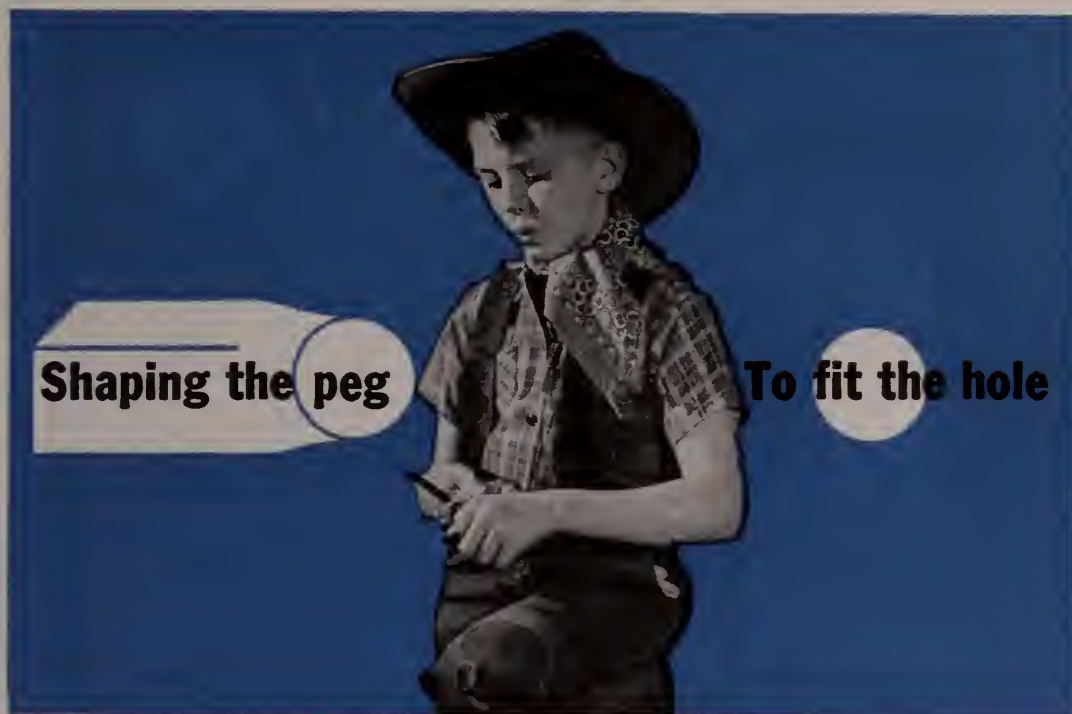
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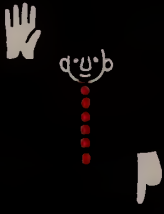

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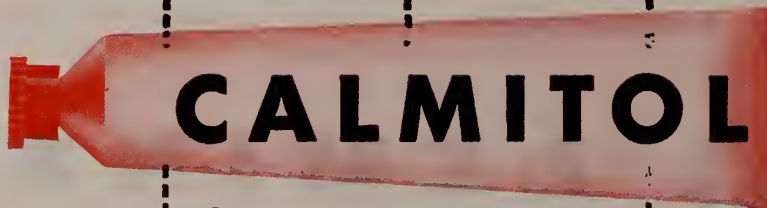


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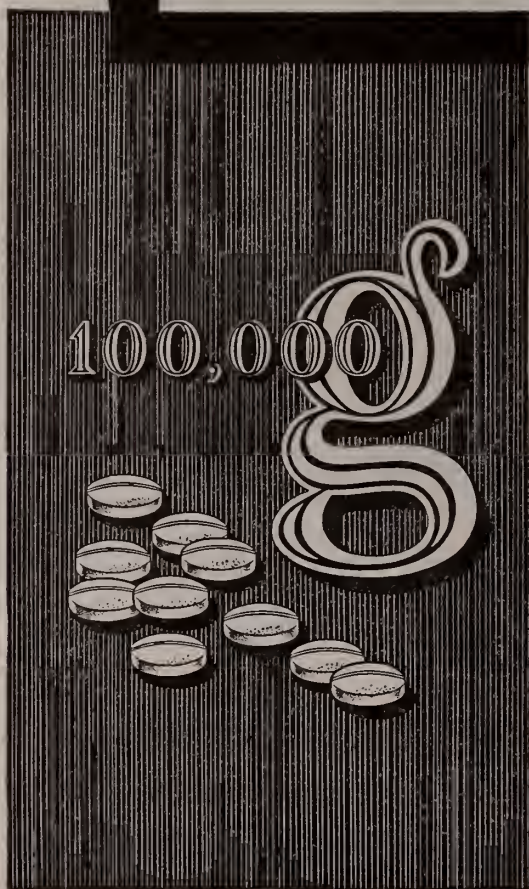
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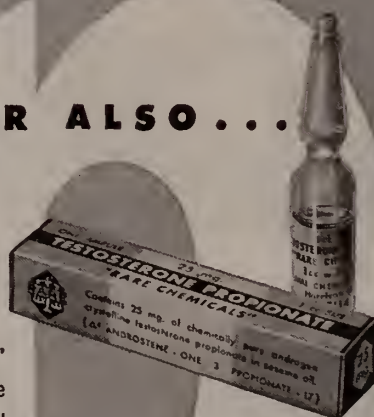


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1. Barr, D. P.: *Modern Medical Therapy in General Practice*, Baltimore, Md., the Williams & Wilkins Company, 1940, vol. 3, pp. 2929-2930.

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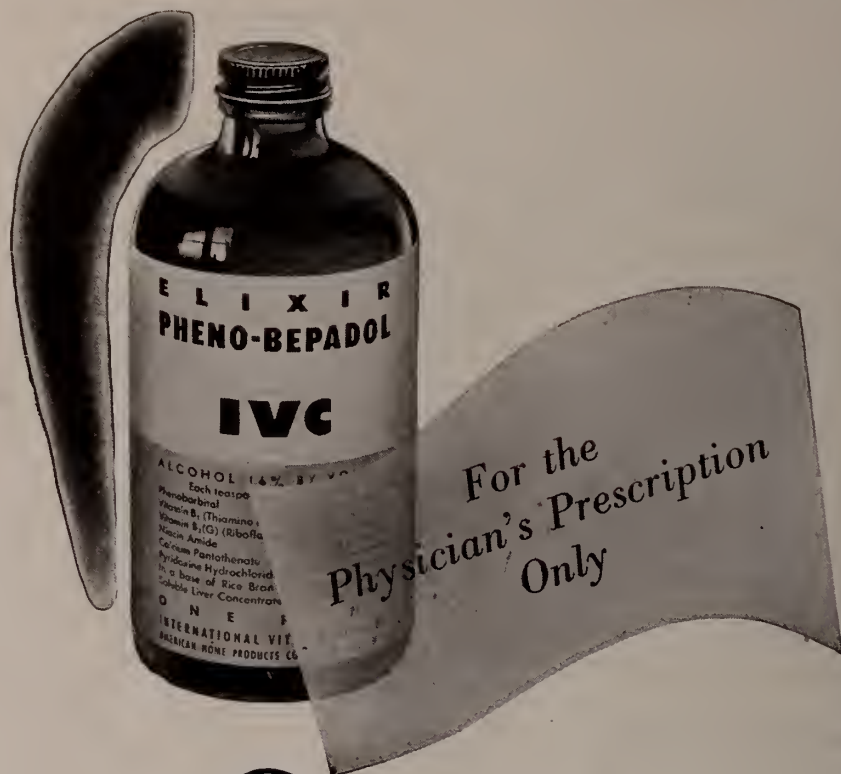


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Early in the present century, physicians began to develop the techniques of prevention and treatment of hookworm disease. Sanitation and modern drugs

relieved large populations of their parasite burden, and the incidence of this insidious disorder was sharply reduced. As a result, the health and economic well-being of many people have been enhanced.

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The Illinois Medical Journal

June, 1947

VOL. 91, NO. 6

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls,
Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle,
Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

REPORT ON THE 1947 ANNUAL MEETING

The 1947 Annual Meeting of the Illinois State Medical Society was held at The Palmer House, Chicago, May 12, 13, 14 — 1947. The meeting this year opened Monday morning and continued in session until 5:00 P.M. Wednesday, giving three full days of scientific meetings. The programs on Monday and Wednesday were conducted as general assembly sessions in the Grand Ball Room. The meetings of individual sections were held on Tuesday, some in the morning and others in the afternoon.

Several special societies held meetings on Tuesday, among these the Central States Society of Industrial Medicine in conjunction with the Chicago Society of Industrial Medicine; Physicians Association, Department of Public Welfare, Illinois Division, American Association of Chest Physicians, and several other groups.

The Secretaries Conference was held Monday evening, May 12, under the supervision of Dr. Willard O. Thompson. An unusual symposium was presented on the general practitioner. Morris Fishbein, editor of the Journal of the American Medical Association, talked on the problems of the general practitioner. R. L. Sensenich, chairman of the board of trustees of the American Medical Association, talked on "The General Practitioner and the Specialist". Dr. Walter L. Bierring, past president of the American

Medical Association, discussed the subject, "The Certification of the General Practitioner". The subjects were intensely interesting and a considerable amount of discussion followed these presentations.

The Annual Veterans Service Dinner was also held Monday evening, May 12, and was well attended with an excellent program. Andrew C. Ivy talked on, "The Attitudes of the Nazi SS Physicians". Colonel William Stone from the Office of the Surgeon General, U. S. Army, presented an interesting talk on "Army Medical Problems in the National Defense Program".

The Oration in Surgery was by Dr. Alfred Blalock of Baltimore on "The Surgical Treatment of Congenital Cardiovascular Defects," and the Oration in Medicine by Herman Hillboe, Assistant Surgeon General U. S. P. H. S., the subject being, "The United States Public Health Service and the Private Practice of Medicine."

The Annual Dinner on Tuesday evening in the Grand Ballroom of the Palmer House was an unusually interesting affair. Dr. Everett P. Coleman as toastmaster presided during the evening. This dinner meeting honoring the retiring president, Robert S. Berghoff, and with the past presidents as guests of the society was a gala affair. Janice Porter, soprano soloist, of the Civic Opera Company sang three songs and the Irving Margraff String Ensemble furnished the dinner music. Following the dinner,

the president's certificate was presented to Doctor Berghoff by Walter Stevenson, Chairman of the Council, who gave an excellent resume of Doctor Berghoff's activities for the state medical society over a period of years. The principal address of the evening was given by Rev. Alphonse M. Schwitalla, S. J., Dean of the St. Louis University School of Medicine, and his subject was, "A Man Looks at Medicine." Father Schwitalla in his usual characteristic style gave an unusual presentation of interest to all present. This address will be published in full in an early issue of the Illinois Medical Journal.

At the second meeting of the House of Delegates on Wednesday morning, Dr. Percy E. Hopkins, Chicago, was elected as President-Elect. H. Kenneth Scatliff, Chicago, first vice-president, Walter E. Kittler, Rochelle, second vice-president, Harold M. Camp, Monmouth, Secretary-treasurer, L. J. Hughes of Elgin was re-elected as Councilor of the first district to succeed him-

self. Dr. H. L. Pettitt, Morrison, was elected Councilor of the second district to succeed Edgar C. Cook who resigned from the Council. Wade C. Harker, Chicago, was elected as Councilor of the third district to succeed himself. Darwin Pond, Chicago, was elected Councilor to succeed Dr. Hopkins who was elected as President-elect. Edwin S. Hamilton, Kankakee, was elected Councilor of the eleventh district to succeed himself. Four delegates were elected to the American Medical Association, Robert H. Hayes, Chicago, Fred H. Muller, Chicago, Mather Pfeifferberger, Alton, and E. H. Weld, Rockford. Four alternate delegates of the A.M.A. were likewise elected, H. Kenneth Scatliff and Warren W. Furey of Chicago, D. M. Roberts of Alton and Walter C. Blaine, Tuscola. Darwin Pond of Chicago and Ralph McReynolds of Quincy were elected for a term of three years as members of the Committee on Professional Demeanor. Dr. Andrew C. Ivy, Chicago, was elected for a term

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PRESIDENT-ELECT.....Percy E. Hopkins, Chicago
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IRVING H. NEECE, M.D.

President, Illinois State Medical Society
1947-1948

of three years as a member of the Committee on Medical Education and Hospitals. Dr. L. O. Frech, Decatur, was elected for a term of three years as a member of the Committee on Medical Benevolence. Oscar Hawkinson, Oak Park, was elected as Chairman of the Committee on Medical Benevolence.

It was the consensus of opinion as expressed by hundreds that this was one of the outstanding meetings of the I. S. M. S. in its entire history. The total attendance was approximately 3500, 3000 of whom were members of the medical profession. The many committees, officers of sections, and others responsible for the arrangements and conduct of the meeting were well assured that their efforts were truly appreciated.

THE FIFTY YEAR CLUB

At a meeting of the Council of the Illinois State Medical Society held in Chicago on August 30, 1937, a proposal was submitted that the Society develop some plan to honor those physician-members who had completed 50 years of practice, and it was suggested that each of these men so honored receive a certificate and an appropriate emblem, preferably of gold. At this meeting the recommendation was approved and the secretary instructed to get information concerning suitable emblems and certificates.

At the next meeting held October 25, 1937, information was available and cuts were presented of the proposed emblem and certificate to be used. The secretary was instructed to order a supply of emblems, and have the certificates made up according to specifications, and a committee known as The Fifty Year Club was appointed, with Andy Hall, Mt. Vernon as chairman, and J. S. Templeton, Pinckneyville and T. B. Knox, Quincy, as the other members.

The emblems were ordered, and at the next meeting of the Council on January 3, 1938, these were shown to the members present. At this meeting the chairman of the committee, Dr. Andy Hall, made a presentation, and urged that the secretary immediately notify all county society officers to be on the lookout for physicians who had completed fifty years of practice, and when they are found to notify the committee through the State Society Secretary's office so that suitable certificates could be prepared, then they should have a special meeting to honor these eligible candidates.

The first certificate and emblem presented to a physician who had completed 50 years of practice was presented on January 28, 1938 to Dr. J. M. McClanahan of Kirkwood, for many years a member of the Warren County Medical Society, and who was graduated from the old Chicago Medical School, later becoming the medical school of Northwestern University sixty four years previously in 1874.

Within a short time many physicians who had completed 50 years of practice were honored, most of them at special meetings arranged by their respective county societies and usually the presentations were made by the councilors of the district.

Although there are members added to the Fifty Year Club nearly every week, at the time this is written there have been 509 members admitted to the Fifty Year Club, each of whom has received a framed certificate and the official emblem in the form of a gold-enamel lapel button, or a pin for the women physicians who have completed 50 years of practice.

Each year at the annual meeting of the Illinois State Medical Society, a complimentary luncheon meeting of the Fifty Year Club is arranged, and there are usually approximately 100 members present. Some interesting programs have been developed, many times completely extemporaneous in character, but always interesting. It is not unusual to find several physicians present who have completed more than 60 years of practice and who have attained the age of 90 at these luncheon meetings.

There probably has been no development within this Society during the past years which has been of greater interest and met with popular appeal of the membership more than the formation of the Fifty Year Club and the honoring of those physicians who have completed 50 years of practice. The club is unique in that only those physicians who have practiced over a period of 50 years are eligible for membership; there are no annual dues, no by-laws, and they actually get together once each year at the annual meeting of the Society.

The Illinois State Medical Society has endeavored to get a photograph of each member of the Fifty Year Club, these to be retained permanently in the fine collection of photographs now housed at the Illinois State Historical Society

Library, where in addition to the photographs, pertinent biographic information is likewise filed. When this work is completed and the files and accompanying information is completely catalogued, this society will have a permanent record of the activities of the membership as a whole over a long period of time, and it is the intention of the Society, as expressed by the House of Delegates and approved by the Council, that this be made permanent and cumulative, through the activities of the Committee on Archives.

Every member of the Illinois State Medical Society can be of service in completing this fine work, by procuring photographs and submitting historical data concerning pioneer physicians of Illinois to the office of the Secretary so that the material may be properly catalogued and added to the permanent records at the Historical Society Library.

Scientific Editorial

ARTHRITIS — A 1947 CONCEPT

EUGENE F. TRAUT, M.D.

CHICAGO

There is no unanimity and only moderate agreement among present-day concepts as to cause, classification or treatment of even the most common types of joint diseases such as rheumatic fever and atrophic (rheumatoid) and hypertrophic (degenerative) arthritis. Concurrence of opinion awaits convincing proof of the causes of these very common sources of invalidism. Public interest is just beginning to admit joint disease to the circle of tuberculosis, poliomyelitis, cancer and venereal infection as worthy of widespread discussion and education.

Specific control of arthropathy is unavailable except in the relatively small group of joint diseases susceptible to sulfa drugs or penicillin, the complications of gonorrhea, pneumonia, meningococcemia or hemolytic streptococcemia.

With the lack of etiological information, hard and fast lines of classification of joint disorders are admittedly difficult. Provisional groupings have been set up according to the acceptable,

modern views by the American Rheumatism Association.¹

International efforts to control the rheumatic diseases by cooperative effort and education of the medical and lay public has led to organization of the British Empire Rheumatism Council and the Ligue Internationale Contre le Rheumatisme.

In common with other public health problems, questions of rheumatic disease will probably not be solved by assembling such scientists as would let themselves be collected and putting at their disposal any large amount of money or institutions. Results are more likely to follow grants of facilities or money to carefully chosen investigators. Opportunities for "research" and temporary promotion of ineffective remedies made available by manufacturers having a string on their endowment are likely to lead to confusion.

Man has always had to deal with joint pain and stiffness. Necessity has driven him to find some effective ways of relief. Generally acceptable and harmless means are known to relieve and prevent the progress of most cases while curing some. In view of the necessarily small number of physicians devoting a large amount of their time to the treatment and (more importantly) to the study of rheumatism, the diagnosis and management of most arthritic patients depend upon the general practitioner. Unfortunately, the exigencies of general practice tend to restrict study and reflection upon any one phase of medicine but much can be accomplished in general practice by insistence on the treatment of the patient rather than his joints, and the use of common sense. Lacking information on the results obtainable by proved and at least harmless treatment of rheumatic disease we are too likely to be attracted by some procedure, glorified by accompanying "detail" literature, requiring only the taking of so many pills daily or periodic injections.

Disorders affecting joints have to be separated from numerous other conditions producing skeletal pains. Such nervous diseases as tabes, cord tumors, herpes zoster, Parkinson's disease, neuropathies due to toxins or to lack of thiamine, segmental pains due to herniated intervertebral disks or even angina pectoris may cause aching and stiffness. Both diseases as Paget's, von

From the Department of Clinical Medicine, University of Illinois.

1. Jordan, E. B. et al. Primer on Arthritis. J.A.M.A. 119: 1089, 1942.

Recklinghausen's, Kahler's disease, senile osteoporosis or skeletal metastases produce rheumatoid pains. Soft tissues attached to bone may have pains reminiscent of arthritis. Among such are fibrositis, postural pains, periarteritis nodosa, lupus erythematosus, bursitis, peritendonitis and trichiniasis. Many infections such as influenza, brucellosis, meningococcemia and secondary lues have arthralgia as a prominent symptom.

Having determined the disease as really one of joints, adequate therapy requires its identification as inflammatory or degenerative. If inflammatory, does it belong to the specific arthritides or is it rheumatoid?

In treating joint diseases today a consideration of what not to do is perhaps more important than what to do. Various poisons and other dangerous procedures are in current use without any convincing demonstration that these hazards relieve arthropathies more definitely or quickly than do measures recognized as safe. Nor is the use of potentially dangerous chemicals or maneuvers condonable on the basis of "well, I have to do something, don't I?" While amidopyrin, cinchophen (atophan), toxic doses of salicylates and intravenous injections of typhoid vaccine often definitely or even brilliantly improve the status of joint disease the occasional bad result or fatality marks them as measures to be avoided. Fever as a treatment for the non-specific forms of arthritis has apparently had its day and many an institution is left with its fever cabinet gathering dust. Proper treatment of rheumatoid and degenerative joint disease is so non-specific that it may be summarized as:

Do all possible good; avoid anything harmful.

Gold has done its damage to patient's skins, livers and hematopoietic systems.² Enthusiasm for its use is waning. Even gold's formerly most earnest advocates now "damn it with faint praise." An occasional article still appears advocating multiple doses of the 50,000 unit vitamin D preparations. Almost every physician seeing many patients with joint disease has encountered cases where the patient has been made ill, even seriously ill, by doses falling well within those recommended by the manufacturers of these vitamin D preparations.³

Also into disuse have gone various preparations not in themselves dangerous but ineffective. In this group are bile salts, sulphur, bee venom, injections of chaulmoogra oil and the indiscriminate use of various vaccines.

There remains as the most important factor in the treatment of joint disease the study of the patient as a sick person and not exclusively as a joint disorder. It is as true for the successful management of arthritis as for other medical problems that "there is no substitute for clinical acumen." Factors tending to produce the disease or hinder recovery must be sought out and eliminated. These arthritogenic agents are as diverse as obesity, overwork, a psychiatric complex, incorrect posture, focal infection or any combination of these.

As a result of a searching history and physical and laboratory examinations we should have discovered most of the factors tending to keep the patient sick. From this information is developed a plan for recovery. Hygienic improvements are prescribed quantitatively in writing. Postural advice is given using the patient as an example. Corrective exercises are taught if indicated. The dietary needs of the patient are studied. Quantitative and qualitative advice on diet is put in writing. Food is prescribed with an eye to proper nourishment and ideal weight. The patient with arthritis usually does better on a relatively high protein intake. In the types of arthritis characterized by inflammation the patient needs meat and eggs as treatment for his anemia, to provide antibodies and otherwise resist infection. Sometimes, a high intake of protein is necessary to replace protein lost in following some previous treatment featured by the elimination of meat and even eggs. Even in the degenerative type of chronic arthritis a high nitrogen intake may be needed during a defatting (reducing) period. Pemberton⁴ has indicated advantages in limiting the intake of refined sugar and starches. Animal viscera and food of high calorogenic value should be avoided in gout.

Such food adjuncts as iron, calcium, hydro-

2. Traut, Eugene F. and Barton, Evan B. Gold Therapy of Arthritis. *Ill. M. J.* 84: 4, 263. Oct. 1943.

3. Rhodes, Paul S., Smith, Freeman and Yeager, Leona B. Toxic Manifestations Associated with Prolonged Ertron In-

gestion. *J.A.M.A.* 130: 4, 197. Jan. 26, 1946.

4. Pemberton, R. Use of Diet in Treatment of Chronic Arthritis. *Am. J. M. Sc.* 161: 517, 1921.
Scull, C. W. and Pemberton, R. The Relation of Dietetics to the Reduction of Tissue Swelling in Arthritis. *J.A.M.A.* 103: 1803, 1934.

chloric acid and the various vitamins are used not routinely but as indicated to supply nutritional needs or deficiencies. Physical therapeutic procedures are recommended with an eye to deriving their greatest benefit at the lowest cost. Taking the cue from Coulter,⁵ the patient and his family are instructed in the home use of physical medicine. The offices of the physical therapy technician should be largely instructive.

The patient is educated in his disease. He must learn what to expect from sufficiently prolonged care and particularly what not to fear. An attempt is made to give the patient perspective as regards the course of his ailment. His anticipation of recovery must be likened to that of the patient with tuberculosis, another disease essentially chronic and lacking specific therapy. 715 Lake St., Oak Park, Illinois

AWARDS FOR SCIENTIFIC EXHIBITS AT 1947 ANNUAL MEETING

It was extremely difficult for the Committee on Awards to select the outstanding exhibits at the 1947 annual meeting. Several suggested that it might be proper to give every exhibitor a medal or a certificate as all were exceptionally fine this year.

In accordance with a custom established some years ago, the Committee on Awards is a secret committee, the personnel not even known to the Director of Exhibits — consequently they are not prejudiced in any way in coming to their final decisions.

The following awards were made in the two classes of exhibits:

ORIGINAL WORK

Gold Medal — Gastric Vagotomy for Peptic Ulcer, by Lester R. Dragstedt, Paul V. Harper, Jr., Edward R. Woodward and E. Bruce Tovee, University of Chicago, Department of Surgery.

Silver Medal — Fenestration Operation — Improved Technique Based on Experimental Studies, by George E. Shambaugh, Jr., Authur L. Juers and C. W. Whitaker, Wesley Memorial Hospital.

Bronze Medal — 1. Intramedullary Onlay Bone Grafts for Shattering Fracture De-

fects, by Frank G. Murphy, Department of Orthopedic Surgery, Cook County Hospital.
2. Liver Function and Liver Structure Clinical Application, Hans Popper, Frederick Steigmann, Karl A. Meyer, Donald D. Kozoll and Murray Franklin, The Hektoen Institute for Medical Research of the Cook County Hospital.

3. Anatomical Specimens Mounted in Plastics, by Otto F. Kampmeier and Thomas N. Haviland, University of Illinois College of Medicine.

EDUCATIONAL VALUE

Gold Medal — Differential Diagnosis in Tuberculosis and Non-Tuberculous Conditions Encountered in the Sanitarium, by K. J. Henrichsen, Municipal Tuberculosis Sanitarium.

Silver Medal — Diseases of the Fundus Oculi, by Bertha A. Klien.

Bronze Awards — 1. Hematology, by Carroll L. Birch and Louis R. Limarzi, Department of Medicine, University of Illinois College of Medicine.

2. Diseases of the Nails (Dermatological Aspects), by Cleveland J. White, R. C. Ranquist, Henry S. Cambridge, Robert H. Harris, Department of Dermatology, Loyola University School of Medicine.

3. Early Midwestern Medicine, by Miss Georgia Price and Miss Elizabeth Carr, Northwestern University Medical School Library.

DDT EFFECTIVE AGAINST HEAD LICE

DDT has proved safe and effective in the treatment of head lice on children, according to the April 26 issue of *The Journal of the American Medical Association*.

One hundred and seventy-three school children were treated by the Texas State Department of Health for head lice with a dust composed of 10 per cent DDT and 90 per cent pyrophyllite, a mineral used for diluting powders.

After application of the dust the child was instructed not to wash the hair for one week. At the end of two weeks a second application of dust was made, and a second examination was made to determine the effects of the insecticide. A third examination was made at the end of four weeks at which time only one of the 173 treated children had lice, and this child admitted having washed his hair the day after the treatment.

5. Coulter, J. S. Discussion of the Value of Physical Therapy in Internal Medicine. J.A.M.A. 117: 1839, 1941.

Correspondence

THE JESSIE HORTON KOESSLER FELLOWSHIP OF THE INSTITUTE OF MEDICINE OF CHICAGO

The Jessie Horton Koessler Fellowship of the Institute of Medicine of Chicago for the aid of research in biochemistry, physiology, bacteriology, or pathology will be available on September 1, 1947. The stipend is \$500.00 a year with the possibility of renewal for one or two years. Only such applications will be considered as are approved by the head of a department in the fields mentioned or by the director of a research institute or laboratory in Chicago, and which stipulate that the recipient of the fellowship shall be given adequate facilities for carrying out the proposed research, concerning which full information is required in the application. Applications will be received up to July 1, 1947, and should be sent in quadruplicate to Dr. Paul R. Cannon, Chairman of the Committee on the Jessie Horton Koessler Fund, 950 East 59th Street, Chicago 37. Since there are no formal blanks, application should be made by letter.

THE THIRD AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY

The Third American Congress on Obstetrics and Gynecology will be held in the St. Louis Municipal Auditorium September 8-12, 1947. This meeting is not only for the obstetric-gynecologic specialists but for those who come into contact with the greatest possible number of maternity cases, the general practitioners. It is also the aim of this meeting to attract all those doctors, nurses, hospital administrators, public health workers and medical educators who are

interested in the care of the mother and child. The program of this Congress will analyze, correlate and broaden the working contact of the doctor and the obstetric nurse, the public health workers and hospital administrator.

The program for the Third American Congress is being developed under the General Chairmanship of Dr. William F. Mengert of Dallas. A few of the sub-section chairmen assisting in the development of the program are: Dr. Ralph A. Reis of Chicago who will head the Medical Sub-section, assisted by Dr. John I. Brewer of Chicago; Dr. Herbert F. Traut of San Francisco, Chairman of the Medical Educator's Sub-section; Dr. S. A. Cosgrove of Jersey City of the Hospital Administrator's Sub-section.

The Scientific and Educational Exhibit is being arranged by a Committee of which Dr. J. P. Pratt of Detroit is Chairman and Dr. Ludwig Emge of San Francisco and Dr. Frank E. Whitacre of Memphis are members. Dr. John Park of Washington, D. C., is Chairman of the Motion Picture Program.

The morning sessions will be joint gatherings of everyone at the Congress while the afternoons will consist of separate group meetings, joint meetings of two, three or four groups and of round table discussions. Daily at nine, one and five o'clock six simultaneous forceps or breech demonstrations on manikins will be held in the Scientific and Educational Exhibit.

The general morning sessions will consider Anaesthesia and Analgesia on Tuesday, Sept. 9; Cancer on Wednesday, Sept. 10 and Cesarean Section on Thursday, Sept. 11. The afternoon meetings of the medical section on Tuesday.

Wednesday and Thursday will consider the Psychosomatic Aspects of Pregnancy, Pregnancy Complicating Cardiac Disease, Diabetes and Tuberculosis and Recent Advances in Endocrinology. The Round Tables will be held daily from four o'clock to five and will discuss Etiology of Abortion, Asphyxia, Fibroids, Prolonged Labor, Infertility, Early Ambulation, Adolescence, Treatment of Abortion, Genital Relaxation, Ovulation, the menopause, the cystic ovary, Uterine Bleeding, Nutrition in Pregnancy, Geriatric Gynecology, Endometriosis and Erythroblastosis.

PHYSIATRISTS NEEDED

There is an urgent need for physiatrists at the Veterans Administration Hospital, Hines, Illinois. This hospital has approximately 3,000 patients. The Physical Medicine Service includes patients from Medical, Surgical, Neuropsychiatric, and Tuberculosis Services. If interested, please write to Dr. K. A. Carroll, Manager, stating training, background, and experience in Physical Medicine.

"CALL ON SOME DOCTORS, SON"

The apple-cheeked investment salesman, freshly weaned from college, sets forth in the world with two pieces of equipment — a brief case for that dignified look, and some sound advice from his elders.

The old-timers in stocks and bonds slap him on the back and give him the advice they had when they were young:

"Go call on some doctors, son."

It is sound advice. Doctors, too often, are good prospects for blue-sky investments. When it comes to slick trading in securities, they haven't the time to investigate. They're scientists, analysts of human ailments, artists of the operating room, travellers in the night, warriors, dreamers, thinkers and curers. But not financiers.

Diagnose an illness? Sure. But when a thousand dollars could be made or lost on a one-point change in Giltedge Preferred, they're busy: a child's appendix has ruptured.

A doctor is a busy man and a hopeful one — hopeful that the fees will take care of the future. Many doctors, lulled by the crowded waiting

rooms which went hand-in-hand with the war-born doctor shortage, figure they'll be pretty well set for retirement, the way fees are piling up.

The doctor needs a "bullet-proof" investment, and the United States has provided it in Savings Bonds. We all know that, but just to make it available isn't enough.

Most doctors need something more. In business matters they need a string tied around a finger. The Government is offering this to them in the new Bond-a-Month Plan. Your bank ties the string, gives it a yank every month. And all the doctor has to do is leave it there. Wilson Mizner said: "The gent who wakes up and finds himself a success hasn't been asleep." As to planning his future, once the doctor has invested in Bond-a-Month, he *can* give all his attention to his important work.

The U. S. Department of Commerce has made studies of doctors' incomes, based on reports of a sample of the 129,000 men and women in private practice in 1940. The studies show that the income rises slowly to a maximum in the early 50's and then starts dropping. From 35 to 54 is the real money-making period.

At 35, most doctors have begun to pay off their starting-in-business debts, have built up a small neighborhood practice and are becoming known. Their practice grows with ability. By the time they are 54, other doctors have come into the community. They make inroads into the established practice of the veteran. The older man no longer so willingly drives out into the country on sick calls. Office hours are shaved a little at the start and the end of the day. There are fewer operations.

And somehow, without the doctors really knowing why, the bank balance doesn't hold up the way it used to.

To come as close as we can to keeping the horse in front of the cart, let's see what Bond-a-Month will do and then explain why this is the solution to the doctor's problem of saving for future security.

Bond-a-Month opens systematic saving through Government bonds to anyone with income and a checking account in a bank. Until now this was available only through Payroll Savings. It operates this way:

The depositor who wishes to buy a bond each month signs a card authorizing the bank to de-

duct the purchase price from his checking account. The bank issues the bonds and delivers them to the customer monthly. The periodic bank statement shows payment for the bonds.

And from the first and the only time the doctor signs his authorization card, he has nothing else to do except open the envelopes the bank sends him with the bonds inside.

What does the doctor need?

1. He needs some sort of arrangement for his financial future because, according to studies of his profession, incomes of physicians are much more responsive to change in the national income than are the incomes in other professions. If the national income drops and patients no longer can afford to call on the doctor so often or to pay him as quickly, a doctor's bankbook will feel the change.

2. In most instances, the doctor has no social security or pension to fall back on. Thus, he needs something to serve as an old-age reserve.

3. He needs simplicity — and arrangement which does not call for continual checking, manipulating, buying and selling.

4. He needs safety. He cannot afford to take

the risks which must be protected by constant market vigilance, by buying and selling strategically.

A savings bond plan should be the foundation upon which the doctor builds his security. There is no safer investment in the world than Savings Bonds. There is no riskless investment which pays such a guaranteed return.

Consider:

If you invest
monthly under

the Bond-a- Month Plan	In five years you will have	In ten years you will have
\$37.50	\$2,319.00	\$4,998.00
75.00	4,638.00	9,996.00
100.00	9,276.00	19,992.00
300.00	18,552.00	39,984.00

Here, for the doctor himself, are vitamins E, F and G, thoroughly tested and always compounded with interest. These "vitamins" ease common symptoms of post-middle age such as chronic worry and doubt. They are available at a bank near you. And with millions of current users, we can make this unusual guarantee: one and a third times your money back if you are satisfied.



ALLERGY TO PENICILLIN, ANTITOXIN CONTROLLED BY BENADRYL

Two groups of investigators report the beneficial action of Benadryl in patients who developed allergic reactions to penicillin or antitoxin serum treatment, in the April 26 issue of *The Journal of the American Medical Association*.

Benadryl inhibits the action of histamine, a poison released by the tissues in allergic reactions.

Fifteen of 824 patients who reacted with hives to penicillin were treated with the antihistamine drug by Donald M. Pillsbury, M.D., Director of the Department of Dermatology and Syphilology, Institute for the Study of Venereal Disease of the University of Pennsylvania, Howard P. Steiger, M.D., P. A. Surgeon (R), U. S. Public Health Service, and Thomas E. Gibson, M.D., all of Philadelphia.

The doctors point out that hives and other allergic reactions to penicillin may constitute a serious bar to treatment with this drug. However, with the addition of a drug such as Benadryl and more recently Pyrobenzamine, administered simultaneously with penicillin, it may be possible to continue treatment in these patients.

In conclusion they state: "Our experience indicates that (1) penicillin reactions are more frequently encountered in patients who have had repeated courses of this drug; (2) some patients who have had an urticarial reaction to penicillin may tolerate further penicillin treatment, while others may not; (3) skin tests with penicillin are unreliable as a means of predicting the occurrence of reactions to penicillin or further administration of the compound; (4) antihistamine compounds, particularly Benadryl, are useful in controlling penicillin urticaria, and (5) urticarial reactions may at times be persistent and severe."

Another group of investigators—J. Cyril Peterson, M.D., and Lindsay K. Bishop, M.D., from the Department of Pediatrics, Vanderbilt University School of Medicine, Nashville, Tenn.—treated 10 patients with Benadryl who developed serum sickness following the administration of antitoxin for such conditions as meningitis, diphtheria and influenza.

The serum reaction consisted of a rash, vomiting or fever. The doctors state that "in every instance 100 milligrams of the drug (Benadryl) completely abolished all manifestations of the serum sickness within a period of two to three hours."

State Department of Public Health

NEW POLICY REGARDING HEALTH EXAMINATIONS OF FOOD HANDLERS

The State Department of Public Health has given extensive consideration to the problem of controlling the spread of communicable disease by food handlers. Many health authorities throughout the country no longer require periodic physical examinations of such workers. The physician can certify as to the absence of communicable disease only on the basis of findings *at the time of the examination*. He cannot guarantee that a given food handler will not spread a disease at some later time, whether that time be a week or twelve months. The same limitation applies to the laboratory examination of specimens submitted in connection with the routine physical examination.

These are the chief reasons why health departments are now placing emphasis upon other provisions which are found to be more effective. In line with action taken by leading health authorities, the State Department of Public Health has revised its policy and programs by incorporating the newer concepts in the field of food sanitation. These are expressed in the following statement recently circulated by the Department among health officers in Illinois:

A. The following wording is to be used as the basic wording in all new or revised rules, regulations or minimum requirements concerned with medical examination and health of personnel promulgated by the Department.

I. "Every person employed in a (maternity hospital, nursing home, milk-pasteurization plant, retail raw dairy, food estab-

lishment, etc.) shall furnish such information, permit such physical examination, and submit such laboratory specimens as the Department (or Director) may require for the purpose of determining freedom from infection."

This section establishes authority for requiring health examination in emergencies or at any other time when conditions indicate the desirability or necessity of such examinations.

B. In connection with all rules and regulations, irrespective of whether paragraph I is used, the following wording as to "Satisfactory Compliance" shall be used and shall constitute the Department's policy in regard to *routine* health examinations.

II. "Any person with an acute respiratory infection or other acute contagious or infectious disease, or a presumably infected wound, sore or lesion shall not be permitted to work in (type of establishment or institution) or to handle food or food utensils until the person has a written statement from the local, county or state health authority that the person is not a disease carrier.

"If the manager or superintendent suspects that any employee has contracted any disease in a communicable form or has become a carrier of such disease, he shall prohibit further work by such employee and shall notify the nearest health authority immediately."

No requirement is established for initial or routine health examinations. No mention is

made of specific diseases. It is believed that routine physical examinations as generally made have little value in control of disease. It is also believed that laboratory examination of specimens submitted in connection with routine physical examinations has little value of a permanent nature.

It is generally conceded that the greatest returns will result from effort expended in

1. the improvement of sanitary facilities,
 2. the provision of training in personal hygiene,
 3. the removal from work and the treatment of persons who are obviously ill, and
 4. the careful study of epidemiological factors with the examination of individuals whose history or clinical manifestations warrant it.
- C. The following material is presented as a general policy statement for release to the general public on request:

Health executives are agreed that there should be control measures to prevent spread of disease by food handlers and public or private institution employees. They have found routine medical examinations inadequate and consider laboratory examination of routine specimens too costly and of doubtful value.

Prompt reporting of communicable diseases with thorough epidemiological investigation and follow-up of cases and contacts will locate most latent and missed cases or carriers. The need for laboratory examinations supplementing epidemiological investigations of disease outbreaks is recognized as essential.

In lieu of routine medical and laboratory examinations of all employees the following control measures must be stressed:

1. The improvement and proper use of sanitary facilities — This can best be accomplished

by means of a strong sanitation program, with adequate inspection backed by a sound sanitation ordinance. Effective use of the U.S.P.H.S. standard ordinances will improve and control conditions in the food industry.

2. The provision of training in personal hygiene — This can be promoted on a general scale in the health education program by demonstration pamphlets, news releases, radio programs, and sponsored group meetings. Special group meetings with personnel of various branches of food industry, institutions, schools, etc., and special public meetings for miscellaneous groups can be arranged. Management should be impressed with the need for including health education in training programs.
3. The removal from work and treatment of persons who are obviously ill — Management and employees must be made conscious of the importance of this and make arrangements for immediate action. Only by rigid on the spot action can respiratory infections and infected wounds, etc., be controlled. Personnel policies such as to encourage full cooperation which will accrue to the benefit of personnel, management and the health of the public.
4. The careful study of epidemiological factors with follow-up of convalescents and contacts — This will concentrate effort at the source of danger and eliminate the necessity of examining all persons as possible carriers.

All Divisions of the Department concerned with the administration of rules and regulations pertaining to require health examinations will please revise such rules and regulations in accordance with the above policy as soon as practicable.



THE WELL-CHOSEN PHRASE

Knowing that the minister was very fond of cherry brandy, one of the church elders offered to present him with a bottle on one consideration — that the pastor acknowledge receipt of the gift in the church paper.

"Gladly," responded the good man.

When the church magazine came out a few days later, the elder turned at once to the "appreciation" column. There he read: "The minister extends his thanks to Elder Brown for his gift of fruit and for the spirit in which it was given." — *United States Coast Guard Magazine*.

Original Articles

THE CURRENT PROGRESS OF MEDICINE

ROBERT S. BERGHOFF, M.D.

CHICAGO

Do I need to tell you what a pleasure and a high privilege it has been to have served as your president this past year? Twenty years ago I came to know you better as chairman of your scientific service committee — and throughout these two decades you allowed me to visit more than sixty of our ninety county medical societies to talk to you about heart disease and to conduct heart clinics. As a consequence, when I assumed the presidency of the State Medical Society in May of last year, I had met thousands of you and made friends, I hope, of many of you. This past year, I am confident I have cemented that friendship. Wherever I went to bring you greetings, I was overwhelmed and humbled by your hospitality. And so, I say in one word goodbye and thank you very much!

The Illinois State Medical Society, as you know, numerically ranks third in membership in this country with approximately ten thousand members, exceeded only by New York and Pennsylvania. However, strength of numbers alone is not the criterion of greatness, is not the yardstick by which a professional state medical organization is measured. Two other assets are of equal or greater importance. The first is spirit or *esprit de corps*, a term a bit difficult to define and as intangible in a way as the "soul of man." It is in a sense the intellectual link which binds

one man to another and groups to the whole. Let us put our premise this way:—

We human beings are born with an insatiable desire to avoid pain, misery, suffering and want, and to achieve perfect happiness. Accordingly very early in our lives, we consciously or otherwise, select for ourselves an "ideal," a "path toward happiness." Now these paths may be very divergent — may be wealth, power, conquest — or service — service to our fellow man. All these paths ultimately converge upon the common objective, happiness. You and I, ten thousand strong in this State of Illinois, have chosen as our path, service to our fellow man. It is vital, therefore, to our individual and collective happiness — and to the good of those to whom we have consecrated our lives, that we possess and kindle and nurture a kindred spirit, an *esprit de corps*, and that, believe me, you my friends, possess to an extraordinary degree. I have seen it first hand, studied it and been edified by it, during this past year of my presidency. You are working steadfastly for each other, with each other and pointing always, sometimes apparently entirely unconsciously towards the betterment of your distressed and ailing fellowman!

The second essential to make a State Medical Society great and strong is scientific progress and achievement. Mental sluggishness, apathy and stagnation mean not only retarded progress but spell the death of science.

Now, judged by that standard, how goes it with our Illinois State Medical Society?

President's Address, given at the Annual Meeting of the Illinois State Medical Society, Chicago, May 12, 1947.

I have said for more than ten years and I repeat with greatest confidence, no state medical society in the United States is more progressive and gives more to its membership in scientific progress and through them transmits more to the people it cares for than does yours and mine. My congratulations to you in that respect!

Your scientific service committee, a pioneer throughout this land of ours, carries new and better medicine to all of its ninety county medical societies constantly. To augment this service, your postgraduate committee has during the past seven years conducted more than sixty postgraduate conference days throughout the state. It is utterly amazing to me, how busy men and women in our profession with national and international reputations will gladly and freely give of their time and energy, leave their important work, and journey to far distant sections of our state to carry their scientific message. They make this sacrifice, not for fame or prestige, they already have both, but because of that intangible, undefinable, lovable "esprit de corps."

What has the science of medicine given to humanity in the past brief three decades? So much, so very much, that it could not even be abstracted in a talk as brief as this. Insulin — for the arrestment of diabetes, the saving of juvenile victims, and the prolongation of a healthy adult population. Liver therapy — has stricken out the fatal objective, pernicious and left only a mild tractable anemia.

The sulfonamides and their telling effects on numerous infections is history. Corneal transplants in ophthalmology, Fenestra operations for deafness — eye, verily, the blind are made to see, the deaf to hear!

Penicillin, which in combination with the sulfonamides has shattered the mortality rate of pneumonia.

Streptomycin, the newest and latest therapeutic contender, is still untried but promises much. Surgery of the congenitally deformed heart captures the imagination. Sub-acute bacterial endocarditis (always 100% fatal before penicillin) gives way to arrestment and cure. Syphilitic heart disease due to venereal disease control and the "drip method" of early treatment decreases cardiac complications to the

vanishing point. Senile heart disease, notably coronary occlusion with heart muscle infarction, due to early diagnosis and adequate management decreases the immediate mortality rate enormously.

And so we might go on and on enumerating specific diseases and specific remedies with promising results.

Of far greater importance is the fact that an intensive overall desire on the part of the government, federal, state and local, to prolong human life through subsidy for research, points the way to a longer, healthier life to the population of this country.

To cite but one outstanding example: The Federal Hill Burton Bill, which allocates to the respective states monies to survey the needs of hospitals, has lead to intensive study of the present and future needs as regards hospital expansion. In Illinois such a survey has recently been completed. From this survey will go recommendations from the Director of Public Health to the Governor and from him to the Federal Government for participation in federal funds for hospital expansion. In this particular instance, the money to be spent will be matched money, one-third from the Federal Government, the remaining two-thirds from state or local or private funds.

The Federal Government will not assist in the maintenance, however.

This policy, the Hill-Burton, fills a need, in that there exists a drastic shortage of hospital beds. However, having served and serving now as chairman of the Governor's Advisory Board on Hospital Survey, and chairman of his Executive Committee on Hospital Survey, I still issue this misgiving. We must be certain that out of these and similar surveys instituted and supported in part by federal monies, the interest of patients and hospitals and the medical profession be not devaluated.

How seriously have we, the medical profession of Illinois, taken our obligation to that appreciable percentage of our population, our patients of the lower income group? Let us be frank and honest with ourselves. How many people of the State of Illinois in need of medical or surgical care are denied that service or are getting inferior service because of their inability to pay?

I say to you that even before our prepayment plans, the one designed to better service metro-

politan Chicago and the County of Cook, the other State Plan, to cover the remaining counties, were instituted, medical care throughout the state, with few scattered exceptions, was far and away more universal and efficient than any other country or possibly any other state. Now, however, with those two plans functioning, we can tell the people of Illinois our patients and our legislators, "We need and we want no enforced federal directives as to how or where to practice medicine."

Fortunately, and this next statement is entirely non-political, for after all, the health and well-being of our patients, your paramount interest and mine, is beyond all politics, the recent elections, both national and local, have switched quite noticeably from federal and state control to the untrammelled and unfettered type of practice to which we have consecrated our lives. Let us see to it that it stays so.

Within the past few months the Council of your State Medical Society has seen fit to authorize a movement to build up at once an adequate Benevolence Fund, entirely on a voluntary basis. You all will remember how our beloved Dr. John Nagel years ago sponsored such a fund. He pointed out that it was an unfathomable paradox to him how we doctors could give so freely to every worth-while charity and show such a lack of interest and enthusiasm in the care of the widows and dependents of our own profession. And now at last we have the opportunity of aiding in any amount that seems to us individually practical in this worth-while cause. Self-addressed, stamped, return envelopes are sent to the entire membership and I can visualize a response so harmonious that shortly, instead of pittance, we will be able to support honorably and help our less fortunate confreres and their dependents.

And so, my friends, in passing over the gavel, the symbol of the authority of the presidency of this grand State Medical Society to my successor, Dr. Irving H. Neece of Decatur, I say to him, "Good luck and be assured of my best wishes and continued cooperation." To you, my friends, what can I say but "Vale and God Bless you — and my deepest gratitude for your confidence and complete cooperation during the past year."

ELECTRIC SHOCK THERAPY IN OFFICE, HOME, AND GENERAL HOSPITAL

S. H. KRAINES M.D.

CHICAGO

Electric shock treatment has been found to be of great value in the depressions, post-operative psychoses, post-partum psychoses, and certain forms of schizophrenia and neuroses.¹ Although its use has been largely restricted to mental institutions and sanitariums, it may successfully be applied in the general hospital, the office, and even the home. There are several indications for the selection of these settings in preference to the mental institution or sanitarium.

Such a modification of procedure necessitates a careful selection of the patient on an individual rather than nosological basis, a modification of the customary technique of administration of the electric shock treatment, and a more effective psychological approach to the patient.

Place of Treatment. The use of electric shock therapy as suggested above in no way minimizes the importance of the mental institution or sanitarium. The State hospital and sanitarium have always been a necessity and will continue to offer a type of service not adequately provided elsewhere. Thus, the acute schizophrenic with active hallucinations, impulsive behavior, and paranoid outbursts is still best treated in special institutions. The manic-depressive patient who is suicidal, markedly agitated, and uncooperative needs sanitarium care. But the schizophrenic who is shy, withdrawn, and has only vague and half-formed delusions, or the mildly depressed patient whose symptoms are primarily those of insomnia, anorexia, loss of interest, difficulty in concentration, etc., may well be treated away from the institution. Similarly, many patients who develop psychotic reactions following pregnancy or surgery while still in the general hospital can best be treated with electric shock without removal from the hospital, provided they are not violent and do not require too much additional service and attention. The decision for general hospital (office or home) or sanitarium care must depend on the judgment and clinical experience of the psychiatrist guided by the history of the illness, the symptoms manifested, the intensity of self-destructive drives, and the

patient's cooperativeness and rapport with the physician.

There are several distinct advantages in the treatment of patients away from the sanitarium atmosphere. For many persons, there is a stigma attached to the mental institution which makes them reluctant to undergo the necessary therapy there. The presence of other more serious and disturbing patients often constitutes an additional threat to the patient's recovery and is usually extremely depressing to both the patient and the relatives. Treated in the general hospital, the patient feels that his illness is "real" and curable. The schizophrenic patient is more readily persuaded that his delusions are part of an illness rather than disturbing realities. The patient's attitude toward recovery is strengthened immeasurably in this atmosphere. Coincidental medical and surgical procedures can more easily be undertaken in the hospital, and the continued cooperation of the family physician, whose knowledge of the patient's and family's problems is invaluable, is thus assured.

There are, in addition, a number of psychiatric cases which develop in the hospital: cases which respond well to electric shock treatment especially when it is introduced early in the course of the illness. Post-infectious, post-partum and post-operative psychoses are often rendered more difficult problems, if a time interval elapses before psychiatric treatment is initiated. Treatment in many of these cases can be instituted immediately in the general hospital, without moving the patient, except perhaps to a private room. The additional nursing care is often minimal in the milder depressive and schizophrenic reactions and recuperation from the physical condition can proceed under the eye of the attending physician.

Mrs. P. J., age 43, was operated on for an hysterectomy. She was recuperating well, but on the seventh post-operative day developed a schizophrenic reaction. She was fearful, cried, insisted that microphones had been placed in her room, and that her food was poisoned. Psychotherapy and conservative management including sedatives and reassurance produced no change in her condition. Three electric shock treatments, given with curare to prevent tearing open of the wound during the convulsion, were administered. She recovered completely and has remained well since.

This patient was in a two-bed room in a general hospital and was given the treatment

with no disturbance to her own or the other patient's progress. No additional hospital arrangements were necessary and the surgeon continued his post-operative management. The patient was saved the delay in recovery, the psychic trauma, and the additional expense involved in transfer to a mental institution.

This type of treatment for the post-partum psychoses is of special value in that the patient is ready to undertake the care and management of her child after the electric shock treatments. If further shock treatment is indicated she can continue as an ambulatory hospital or office patient until complete recovery occurs.

There are a number of cases brought to the general hospital which, because of an associated psychotic reaction, do not respond to medical or surgical care. Removal of these patients to a sanitarium for treatment jeopardizes their medical and surgical care.

Mr. L. B., age 32, was hospitalized for a suspected ischiorectal abscess. His white count was high and there was mild fever, but there was insufficient localization to warrant surgery. Sulphadiazine and penicillin were prescribed. The patient, then, developed a psychosis. He insisted that he was half-man and half-woman; that he had given birth to a child; that people were playing tricks on him; that his mind was being read; etc. All medication was discontinued but despite the usual conservative management, the psychotic symptoms continued. Electric shock therapy was given, without moving the patient from his private room and after four treatments his psychotic symptoms subsided. A week later an abscess was localized, incised, and drained. The patient recovered from his physical illness and was discharged from the hospital to continue psychotherapy in the office. Had it not been for the shock treatment in the hospital the medical management of this case would have been considerably complicated.

Ambulatory patients may also be given shock treatment in the general hospital. The patient, accompanied by a relative, arrives at the hospital in the morning with no special preparation other than the elimination of breakfast. He is admitted to a private room where the treatment is given. Following the treatment, the relative remains with the patient for approximately two hours, at the end of which time, the patient dresses and returns home without assistance. Treatments are usually given in this way three times a week.* In but few instances does the

*The number of electric shock treatments given to any patient varies with the patient's reaction to treatment. From

patient who comes voluntarily the first time refuse to return for his regular course of treatments. Such ambulatory therapy has several advantages. There is a financial saving of hospital costs to the patient and a saving of much needed bed space to the hospital, an important consideration in this time of critical shortage of hospital beds. In addition, the time element is of advantage to some patients and the possibility of continuing with one's occupation and of maintaining home and social activities while still receiving treatment is of importance.

Mr. J. P., age 53, a janitor, developed a marked depression. He became more and more incapable of work and finally left his job. General medical examinations were negative and he was referred for psychiatric care. Arrangements were made for him to come to the hospital three mornings a week for the shock treatments. His sister accompanied him. At the end of the fourth treatment his appetite returned and he could sleep well without sedatives. At the end of the sixth treatment he seemed recovered and secured employment at the steel mills. He remained well and is working to this date, ten months later. During this time he came voluntarily to the hospital and during the several hours of his stay there he manifested no disturbing behavior.

There are several situations wherein this same procedure can be followed in the office² and in the home. These present several advantages to both the physician and patient. To the patient, cost and time are at a minimum. There is no delay in waiting for bed space as in the general hospital. There is no stigma in coming to an office building. Employment can be continued and the housewife is free to carry on with her duties. Of definite value is the additional psychotherapy given to the patients in their highly suggestible state after coma, the psychiatrist being constantly on call in the next office. For the psychiatrist, this procedure offers a great saving in time and permits closer observation of the effect of the shock therapy on the patient. The therapy is given in a special treatment room adjoining the main office. A regular hospital bed is all that is needed. The treatment is given with the assistance of one nurse, but may easily be given by the physician alone, following the technique of administration described below. The incidence of fatalities is so low (1 in 2000 cases)³ that there is a minimum of risk, especially when the patients selected are in good physical health

The incidence of fractures varies considerably with the therapist (averaging about 2%)⁵; and should these occur they are dealt with in the same fashion as are fractures produced by falls, injuries, etc. By modification of the usual shock treatment procedure (see below) even the 2% incidence can be greatly reduced. Morphine, intravenous sodium amytal, and restraints are available in the office, but thus far have not been used.

These office treatments do not require the full time of the psychiatrist — since after the treatment is given and as soon as the post-treatment phase subsides (from 5 to 10 minutes) he is free to attend his other patients in the adjoining office. A relative remains with the patient after the treatment is over and during the period of rest (about two hours). It is advisable for the psychiatrist to see the patient after the rest period in order to institute psychotherapeutic suggestions and concepts. The patient is "normal" after the treatment and capable of returning home by private or public transportation.

Office shock treatments are of special value in those cases of relapse which are in need of one or two "booster" electric shock treatments. They are of particular convenience to those persons who need to continue their employment and can come only after working hours. With such therapy these patients can return to work the next morning.

Dr. B. T., age 32, a self-employed chiropodist, developed a manic-depressive depression. He gave up a lucrative practice and stayed at home. His funds became exhausted and his family became dependent upon relatives for support. The patient was depressed, developed insomnia, lost 25 pounds in weight, had no energy, lacked decision, became impotent, and cried frequently. Two shock treatments were given him as an ambulatory patient in a hospital. When time came for his third treatment no bed was available in several hospitals. The treatments were continued in the office. After his sixth treatment he secured employment as a chiropodist and carried on his work successfully. A month later he again became depressed. Two more shock treatments were given him in the office in the evening and the patient continued daily with his usual employment. He is now completely well.

The same procedure, if necessary, can be carried out effectively in the home. There are a number of instances where the family is reluctant to send the patient to a sanitarium or state institution, and where the patient may create a disturbance in a general hospital or office. There

3 to 20 constitutes the usual range but one case (J. Perlson, Arch Neurol. & Psychi. 54: 409 Nov. 1945) was given 248 shock treatments with recovery.

are other instances where the desire of the patient for privacy is very great and the patient's co-operation can be better secured if treatment is given in the home. Since an ordinary bed may be used and the shock machine is portable, no special provisions need be made if the case is in good physical health and there is some one responsible in attendance after the doctor leaves.

Miss N. W., age 37, had suffered from a chronic schizophrenic reaction since the age of 20. The patient was relatively mute, ate poorly, and sat and stared into space most of the day except for short periods when she played the piano. After several years in various institutions without change in her symptoms her mother decided to keep her home, but requested electric shock treatments which had thus far not been tried. Because of several unfortunate experiences, the mother was adamant in her refusal to permit the patient to go to a sanitarium. The patient was too erratic in her behavior to treat in a general hospital or in the office but she was easily managed by her parents at home. Shock treatments were instituted at home and were given at irregular intervals. After 14 treatments there was sufficient improvement in the patient's condition so that she spoke, helped with the housework, and seemed much more cheerful. Although she was not cured, the parents were gratified at her improvement under circumstances so ideally suited to their needs.

The administration of electric shock therapy modified from the usual procedure is the same for the hospital, office, or home.

Psychologic Approach Before Treatment. One of the major factors in securing the patient's co-operation for electric shock treatment is the psychological preparation for it. Little is to be gained by describing the convulsion. The patient is merely told that he will be put to sleep by the shock machine and that the treatment will have its effect while he is asleep. No pain or discomfort will be felt. He is warned that he may suffer from muscle sprain of varying degree and that fractures are a rare possibility. He must be told of the likelihood of memory impairment, but needs reassurance that his memory will be normal several weeks after the treatment. Emphasis should be placed not only on the therapeutic effect of the shock therapy but also on the importance of the patient's establishing hygienic, intellectual and emotional stability.

When the patient comes to the hospital (office or home) for the treatment the physician's attitude must be pleasant, relaxed, unhurried, and reassuring. Neither the physician's manner nor

the use of the apparatus should be made formidable. The patient is made comfortable in bed, with a pillow under his back; the apparatus is connected in the usual manner, the patient asked to fold his hands across his chest, the rubber wedge placed in the mouth. During these procedures the physician engages in a continuous conversation with the patient commenting, answering, reassuring. The moment all is in readiness, the electric shock is given.

The Use of Restraint. It is a grave error to restrain the patient during the shock treatment. The convulsive attack is exactly like an epileptic attack with the exception of the precipitousness of the tonic spasm. The electrically induced convulsion needs no more restraint than does the idiopathic convulsion. Rarely do epileptic patients have fractures of bones, or severe muscle sprains. They do have muscle soreness and fatigue, and in falling may injure themselves, but the muscular seizure itself has few orthopedic complications. In such a convulsion, if the patient is held, the external holding force acts as a fulcrum upon which the attached muscles can then exert greater leverage. When the limbs of the patient are not held they tend to assume a position which is a resultant of the forces of agonist and antagonist muscles and with equalizing pulls on the points of origin or insertion.

In consequence, when the shock treatment is given it is my practice to avoid any form of restraint. The patient's arms are folded across the chest and gently held to avoid the occasional violent abduction which produces dislocation of the shoulder. Only the mouthpiece is firmly held in place.

The greatest danger of fractures in physically healthy persons occurs in muscular men, and is a direct result of the power of their muscular spasm. In women, the number of fractures and even of muscular pains is much fewer than in men. Similarly, older and weaker men have few muscular aches and pains. Further evidence of the effect of muscular fixation is the tendency of women with heavy pelvic fat to sustain back-aches after the treatment, the lumbar muscles sustaining minor tears in their effort to move the relatively immovable pelvis.

In order to avoid post-convulsive restlessness, I prescribe phenobarbital gr.1-1/2, and dilantin gr.1-1/2 an hour before the shock treatment. By

this method, the intensity of the convulsions is less, and there is little post-convulsive restlessness.

One further procedure is of occasional value. Within a few seconds after the convulsion is induced the arms may rise to a 45 degree angle and remain in a tonic spasm for 20 to 30 seconds. In one such case, a "chip fracture" of the anatomical neck of the humerus occurred. Since then it has been my practice gently to move those limbs which remain for more than a few seconds in one fixed position. It will be found that the limbs yield readily to gentle pressure, and the change in the arm position changes the directional pull on the bony points of muscle origin.

The Electric Shock Treatment: The technique of administration as given with a standard shock machine is somewhat modified. In the present procedure the electrically induced convulsion is extremely precipitous, differing in this fashion from the idiopathic convulsion which attains its full tonic spasm over a period of a few seconds. With the electric shock, the current is usually applied for 0.2 or 0.3 seconds with the tonic spasm immediate; in the epileptic patient one can almost see the gradual stiffening of the patient as he goes into his grand mal attack. This suddenness of muscle spasm is the major reason for the greater prevalence of muscular pains and of fractures following shock treatment.

There is need for an apparatus which can more closely simulate the idiopathic convulsion. Pending such development, it is my procedure to utilize small, rapidly repeated shocks until the convulsion is produced. The dials are set for 300 MA and 0.2 seconds; the treatment button pressed; and, as rapidly as the controls can be reset, the treatment button again pressed. If no convulsion occurs immediately, the time is increased to 0.3 second and the procedure repeated until the convulsion occurs.*

The results have been extremely satisfactory, and the patients so treated have complained less of muscular soreness than have those given the more sudden type of convulsion.

The Use of Curare: In those instances where there is increased danger to the patient from the violent muscular spasms, curare is of particular benefit. It is administered as intocostin and

given slowly intravenously in dosages beginning with $\frac{1}{2}$ mg. per pound body weight. The injection continues until marked muscular weakness is present as indicated by the patient's inability to keep his arm elevated, and a marked slurring of speech. The apparatus is connected before the injection begins. When the maximum relaxation is reached (rarely is more than 100 mg. necessary) the convulsion is given. In these cases there is only the mildest muscle spasm. After the convulsion, (which is in itself an antidote to the curare) postigmine (1:2000) is injected intramuscularly. Inasmuch as curare is excreted rapidly the danger period is approximately $\frac{1}{2}$ hour. Artificial respiration is rarely needed to overcome muscular paralysis.

As already described, patients with operative wounds can safely receive the shock treatment, when it is indicated, by the use of this paralyzing drug. In one case of marked arthritis of the spine, shock treatment with the use of curare cleared the accompanying depression and had no adverse effects on the physical state. Some physicians use curare routinely in all cases with excellent results.

Psychologic Management Immediately Following the Treatment: The treatment itself is without any pain or discomfort. Yet many patients develop a marked fear of it. Two factors exaggerate the patient's fears: the first being the period of confusion on awakening, and the second resulting from the excessive number of persons so often holding the patient during the convulsion.

It is possible to minimize the effect of the confusion by having the relative sit with the patient after the convulsion. Never should the relative be permitted to see the convulsive treatment. Recognition by the patient, upon awakening, of someone familiar is a great relief to him until his normal reorientation is effective. It is also of value to have the relative assume the responsibility of taking the patient home in those cases which are ambulatory to the hospital or office.

The avoidance of restraint and the continuous reassuring comment by the physician do much to avoid the second cause of fear. A short period of time after the cessation of the convulsion the patient opens his eyes and looks about. Although he looks about and responds to the spoken

*I am indebted to Dr. J. D. Freund who suggested this technique.

word by looking, he is actually in a state of decerebration much as is a decorticated dog. It is at this point that the patient is extremely fearful, startles at the slightest noise or sudden movement, and reacts with violent struggling should he be restrained. The period of excitability lasts several minutes, after which the patient usually falls asleep for a short period of time. If the patient is restrained not only may he be violent in his struggles but may scream and shout in fear and rage. If, on the other hand, he is permitted to thrash about and even to get up on his hands and knees in bed, care being taken only to prevent self-injury, then the excitement period quickly subsides without disturbance.

The effect of restraint and non-restraint was well illustrated in the case of Mr. D. S., age 26. Having suffered from a depression he received 8 electric shock treatments in a hospital where the procedure was to have four attendants hold the patient during the treatment. He improved slightly but developed an intense fear of the shock therapy and refused to have any more. After two months of idleness at home in his depressed state he was persuaded to have his treatments in the office. After 5 such treatments he returned to work. His wife, who accompanied the patient to the office, stated that in the hospital she had heard her husband scream and yell during each treatment, but heard no sound from the patient during his treatments in the office. This patient, after the treatment, would thrash about in the bed and get on his hands and knees. No effort was made to restrain him and in a few moments he would relax and go to sleep. His screaming was the direct result of the restraint.

It is of interest that such violent postconvulsive responses occur far more frequently in younger and normally aggressive men than in older men or in women.

Complications. Several types of complications occur. During the treatment there is frequently a dislocation of the jaw. This is quickly and easily reduced during the short period of relaxation immediately following the last clonic movement. There is apparently no after effects of such dislocation.

Many patients complain, as do epileptic patients, of muscle aches throughout the body. Again, the greater the muscular strength the more intense the muscle aches from the convulsive movements. These aches disappear within a few weeks after the treatments. The less the

restraint the less the frequency of muscular aches.

Fractures occur very infrequently. Wolfe⁴ reporting on 1000 patients, stated that 2.53% of the patients had x-ray evidence of vertebral fractures; yet only in two of the patients were there any symptoms. He lists other fractures of the long bones at about 2%. On the other hand, Kalinowsky⁵ in 1500 patients had no fatalities and only 2 cases of fractures in long bones. One fracture (of the neck of the humerus) occurred in the author's series of 107 patients receiving 612 treatments. Of this number 5 were treated in the home, 26 in the office and 76 in general hospitals. Through the avoidance of restraint procedures it is believed that even this small percentage of fractures can be decreased. In those cases where curare is used routinely there has been no report of fractures.

Death also may occur but is extremely rare. Kolb and Vogel³ report four deaths in 7,207 patients. Several other reports indicate that emboli from phlebotic veins may be an important cause of death. There have been no deaths in the author's series.

Memory loss is the rule after several shock treatments and becomes progressive in intensity with the increase in number of treatments. The memory loss usually clears up after several weeks to several months, the time often being directly proportional to the number of treatments. During this period the reasoning power is unaffected.

Psychotherapy for the Illness. It is not within the province of this paper to discuss the total therapy of the psychiatric patient, but it cannot be sufficiently emphasized that the patient's life-long unhygienic attitudes may nullify the benefits of shock therapy. Shock therapy has its neurophysiologic values, often of an essential and dramatic nature, but if the patient remains with habits of intellectual subjectivity and emotional instability, he will remain neurotically handicapped. In consequence, psychotherapy, brief though it may be, is a sine qua non to complete recovery.

SUMMARY

Electric shock therapy need not be retained solely for sanitarium use. It can successfully be utilized in the general hospital, office, or home. To minimize even the small risks of this form

of treatment, it is recommended that a) the psychologic approach to the patient be carefully considered, b) that all restraint be avoided during the patient's convulsions, and c) that the precipitousness of the electrically induced convulsion be modified. The psychologic management of the patient in the postconvulsive state is most important. Psychotherapy for the patient's illness is regarded as an essential corollary to a cure.

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CRYPTORCHIDISM: PROBLEMS IN SURGICAL TREATMENT

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While treatment of the cryptorchid testis has improved considerably during recent years, there still remains a small group of patients in whom neither endocrine nor surgical treatment is able to effect the desired result; namely, the bringing of the testis to its normal position in the scrotum.

The problem we wish to discuss concerns the method of disposal of such a testis. This problem was emphasized during the war years due to the fact that selective service examinations brought a greater number of these individuals to the doctor for surgical correction. Many of them otherwise might never have sought or received any treatment whatsoever.

By the term cryptorchidism we mean a state in which the testis is not in the normal position in the scrotum. Patients with this condition are divided into two groups. In the first are included those in whom the testicle has halted along the

normal path of descent. This we refer to as simple undescended testis. The other group is made up of patients with ectopic testes which have deviated from the normal path of descent. This latter group comprises only a small portion of the total number cryptorchids. Sometimes moveable testes are classed as cryptorchid but they are not truly so and a definite distinction should be made between the two conditions. Errors in classification lead to errors in the statistics, such as percentage of cures, which result when these patients are given hormone therapy.

The state of cryptorchidism is frequently associated with various degrees of aplasia or hypoplasia of the involved testis. Whether this is the result of or the cause of the cryptorchidism cannot always be determined. Frequently we see small hypoplastic testes in which we are certain that there is an intrinsic developmental defect in the testis itself.

There is also another system of classification, on an endocrine basis. In general, we recognize two main groups: first, those children with obvious endocrine disturbance of the so-called Frohlich or pituitary deficiency type. In these there may be bilateral undescended testes which are unusually small. The cryptorchidism is seemingly on an endocrine basis and merely a part of a general endocrine disturbance. The other group, by far the larger of the two, consists of patients who have no indications of endocrine deficiency and have apparently normal secondary sexual characteristics. In these the cryptorchid condition often is unilateral, with one apparently normal testicle in its proper place in the scrotum.

Our regime of treatment at present calls for a preliminary trial of endocrine therapy in the form of injections of chorionic gonadotropin. The total dosage is not large, usually about 5000 units. If this amount does not elicit any response, no further injections are given. If there is some favorable reaction, treatment may be continued.

This medication is usually given somewhere between the age of 7 and 10 and is in a certain sense more of a diagnostic than a therapeutic measure. This test shows whether or not endocrine stimulation will cause the testis to descend. If so, we classify this as one of the cases in which spontaneous descent at puberty will occur, and no

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surgery is necessary unless there is associated with it a hernia which requires correction. If the cryptorchid testis fails to descend with endocrine therapy, we feel that it would also fail to descend at puberty and that surgical correction before puberty will give the best chance for eventual normal development of the testis.

The operation of orchiopexy can be done between the ages of 7 to 10 but should not ordinarily be delayed later than this. When puberty arrives, the testis should be in the scrotum ready to respond to the endocrine stimulation which normally occurs in this period.

Surgical correction consists in freeing of the testicle and the spermatic cord so as to allow it to be placed in the scrotum where a bed has been prepared for it. Dr. Charles McKenna's method of using the tissue of the gubernaculum for suture of the deep fascia of the thigh still seems to us to be the best procedure. It allows secure fixation, which can be maintained for an indefinite period at the will of the surgeon; it causes no inconvenience to the patient and the surgeon can assure himself that the testis is loose and free and that it will not retract before he unfastens the connection to the thigh.

The most difficult surgical problem arises in those cases in which it is impossible to get sufficient cord length so that the testis may be properly placed in the scrotum. This occurs in a small percentage of the whole, possibly about 5 per cent. It is most often due to shortness of the cord structures, but we sometimes see cases in which previous surgery has been done and the testis has either not been freed at all or has been improperly or insufficiently freed. The lack of sufficient length in the cord structures may be due either to shortness of the vascular pedicle or of the vas deferens. The structures themselves may be long enough, but adhesions prevent their extension to their full length.

The vessels more often cause trouble. Of course, an attempt is made to free them as high retroperitoneally as possible. If freeing as high as can be reached with the finger does not give sufficient length, we do not hesitate to cut the muscles and extend the incision higher so as enable dissection of the vessels farther up along their course.

Where the vessels seem to be of sufficient length, but the vas is short, the problem is not so diffi-

cult. If freeing the vas down towards the bladder does not give sufficient length, it is possible to obtain extra length of the vas by straightening its course. Normally, the vas passes up from the ejaculatory duct to the internal inguinal ring, bends at an acute angle and passes down the inguinal canal. Additional freedom and length can be obtained by eliminating this acute angle.

It has been suggested that this be done by passing the testis under the epigastric vessels. We have tried this and found that the structure which caused the acute angle was not the vessels but the layer of transversalis fascia which forms the floor of the inguinal canal. This layer must be cut to eliminate the angle. Since these vessels may be ligated with no ill effects, we believe that it is better to ligate and cut them, rather than have them intact above the cord. If, for any reason whatsoever, surgery should be necessary later, the vessels in their superficial position might cause the operator trouble.

These procedures obviously help where the shortness of the vas is causing the difficulty, but they are of no benefit where it is the spermatic vessels which are short. We have carefully measured the cord length both before and after these procedures in cases where the vascular pedicle was short. In no case was the additional length obtained more than one centimeter. We have not tried any methods which involve cutting or altering the inguinal ligament.

In all cryptorchid cases, the Ferguson type of inguinal repair with the cord transplanted beneath the muscle layers is used. This gives the most direct and shortest path for the blood vessels to follow, and allows for greatest length. If the testis can be brought to the upper scrotum, but no farther, we fix the testis to the fascia of the thigh with the thigh flexed. Adhesive strapping is used to prevent straightening of the thigh. This position is maintained for a week to ten days and then the thigh is gradually straightened. There may be some discomfort at first, but there is gradual stretch and the testis may be drawn down a little lower.

Despite all efforts, there are times when the testis cannot be brought down sufficiently to place it in even the upper portion of the scrotum. If it is the vas which is short and all efforts to obtain greater length fail, the vas, of course, can be divided and this procedure is warranted in

such a case. It is much better to have the testis in the scrotum even if the spermatogenic function cannot be preserved, since the endocrine function will still be maintained. With the alternative of leaving the testis in the canal, spermatogenic function would not develop anyway, so the cutting of the vas does not make the patient any worse off and allows the testis to be in the scrotum, which is unquestionably the preferable condition.

However, if it is the vessels which are short, they cannot be divided so as to gain greater length. Unfortunately, this defect is found more often than shortness of the vas. It has been suggested that after division of the spermatic vessels the artery and vein accompanying the vas deferens would provide an alternate blood supply. These latter vessels are comparatively so much smaller than the spermatic vessels that circulatory insufficiency and atrophy result, and the testis is functionally lost.

Where the testis cannot be brought into the scrotum, it may be either removed or may be left at some higher level. However, the testis should be placed in the scrotum even very high, if at all possible, since any reduction in the temperature of the testicle in this location will favor return of spermatogenic function.

At the next point higher, the testis lies just over the pubic ramus. This is a very unsatisfactory position, since the testis overlies the unyielding bone and is constantly subject to pressure whenever the individual leans against anything or carries any heavy object, or even from the pressure of clothing.

Of the locations above the pubic ramus, it is debatable whether it would be better to bring the testis outside of the external oblique fascia or leave it in the inguinal canal. We favor the former position. In this position, outside the fascia, it is most easily felt and palpated. If it is buried under the fascial layers, it is less subject to injury, but it cannot be palpated and any changes in size are not readily noticed. The last alternative before removal is leaving the testis intra-abdominally, where it has the greatest protection from any injury, but is not accessible to any examination whatsoever outside of surgical operation.

The idea of operating a second time in the hope of being able to free the cord structures further has been disappointing in a few cases

where we have seen it tried. Usually adhesions and scarring make freeing of the cord structures more difficult at the second operation than they were at the first. The suggestion, which has been made, of leaving a hernial sac which would gradually stretch the cord structures has not proven successful.

Another group of factors which must be considered in making a decision includes the size and apparent functional potentialities of the testis involved. Not infrequently, these cryptorchid testes which cannot be freed are found to be either aplastic or very hypoplastic. Obviously, the sacrifice of a very aplastic testicle may be more readily justified than that of a potentially functioning testis.

There is some difference of opinion as to the danger of leaving the testes either in the groin or in the abdomen. As previously mentioned, in the groin the testis is more subject to trauma, but it is also available for periodic examination. When in the abdomen, such examination is impossible but, of course, the testis is better protected against injury.

The importance of having the testis where it can be examined lies in the fact that undescended testes are more subject to malignant disease. We know that opinions vary as to the importance of this factor but in our experience malignant disease of the testis has been much more common in the cryptorchid group. We cannot say whether the cryptorchidism is the cause of the malignant degeneration. We believe that the cryptorchidism in these cases is the result of a congenital disease or inadequacy of the testicle which, in addition to causing failure of descent, eventually results in malignant degeneration and formation of embryonal tumor. From this belief is derived our preference for having the testis accessible to examination, even at the expense of exposing it to possible trauma. We feel that trauma is less important than congenital factors in the genesis of malignant disease in the cryptorchid testis.

Another factor which enters into the decision as to disposal is the state of the opposite testis. Where the testis on the opposite side is normal and in good position in the scrotum, we might say that our general principle is to remove a cryptorchid testis which cannot be brought at least to the upper scrotum. This is especially true if the cryptorchid testis is hypoplastic. If

it is of good size and the patient particularly desirous of retaining it, we can make exception and leave the testis in the groin.

Of course, if the other testis is hypoplastic as well, there is much more reason to try and preserve every bit of functioning testis that may be present. In such a case, the endocrine function alone of the cryptorchid testis makes it well worth the effort to preserve it. We feel that in such a case the preservation of some function in the patient's own testis is worth whatever risk may be involved. If the other testis is also cryptorchid, we then usually leave the testis in at least until the result of surgery on the opposite side is determined. It can always be removed later if the eventual status of the other testis makes that course seem desirable. Where the other testis is apparently functionally inadequate, we always feel that it is best to preserve the patient's own testicle wherever it may be, rather than have him depend on replacement endocrine therapy for the balance of his life. While this can now be done adequately, we think it much better for him to supply his own androgens.

Where a testis is left in the groin, the patient should have periodic examinations and should be warned to report at once in the event of any increase in size or other change in that area.

SUMMARY

In conclusion, we might sum up the general principles as follows:

The testis should be brought down well into the scrotum wherever that is possible.

A position high in the scrotum is the next best.

It is not desirable to leave a testis either in the groin or in the abdomen. This should be done only when it is felt that the opposite testis is not, or will not be, functionally adequate for the patient's ordinary endocrine needs. Where it is necessary to preserve such a testis in a location not in the scrotum, we believe that the groin is a better position than the abdomen since the testis is then accessible for examination. This is to be preferred, since there is a definite risk of malignant degeneration in the cryptorchid testis.

The final decision in each case must depend on the conditions that are present, particularly with reference to the functional capacity and potentialities both of the involved testis and of the one on the opposite side.

LOW BACK PAIN

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This resume of the causes of low back pain and the means of identification is presented to facilitate the diagnosis by the general practitioner who finds the complaint frequent and baffling. Of equal medicolegal importance is the individual who malingers about low back pain because it is common knowledge among the laity that the subjective complaint cannot be denied. The lack of knowledge by the doctor of the many etiologic factors leads him to make an all too frequent diagnosis of sacro-iliac strain without any justification and the patient is forced to make the rounds from office to office until he finally is cured or resigns himself to his unnecessary disability.

Sacro-iliac strain may have an acute onset as after bending or lifting, or an insidious onset due to postural or occupational causes. A list away from the affected side, muscle spasm, limitation of movement and tenderness medial to the posterior inferior spine is demonstrable. In the sitting position the pain is lessened. Compression of the pelvis reproduces the pain. Reflex sciatic pain may accompany this as well as any other condition hereafter mentioned. Local and referred pain are eliminated temporarily by novocaine injected into the joint (Steindler test.) Flexion of the hip with the knee extended (Lasegue sign) increases the pain in this as well as in lumbo-sacral strain and is a reliable test of malingerer. The repeated identification of a tender point confirms the veracity of the complaint because sensation of the back is not as well defined as elsewhere on the body.

Lumbo-sacral strain produces the same findings as sacro-iliac strain except that compression of the pelvis and sitting position have no effect and the point of novocaine injection and tenderness exists medial to the posterior superior spine.

Hypertrophic arthritis of the sacro-iliac and lumbar joints is usually associated with a generalized arthritis and is indicated by spurring, sclerosis and irregularity of joint margins, and stiffness after rest. Root pains occur when the intervertebral foramina are narrowed by the process. The degenerative changes make the ligaments of such a joint more liable to strain

and each such attack further damages the joint so that a vicious cycle is set up and the disability becomes so extreme as to require arthrodesis.

Congenital anomalies such as spondylolisthesis, spina bifida, asymmetrical lumbo-sacral articular facets, etc, produce a mechanically deficient spine which predisposes to strain of the spinal ligaments. These conditions are readily identifiable by x-ray.

Muscle strain has an acute onset usually occurring during an unguarded sudden lifting or twisting movement. Tenderness is directly over the torn muscle fibers where occasionally an indurated hematoma may be palpable. Active bending which stretches the muscle, or straightening up which causes the muscle to contract exaggerates the pain. The sacro-spinalis muscle is the commonest offender. Novocaine injected into the muscle sheath relieves the pain.

Fasciitis is an inflammation of the lumbo-dorsal fascia, chronic in nature, existing most commonly at an area lateral to the attachment to the lower lumbar spinous processes which is also the tender area. Bending forward makes the fascia taut and increases the pain. Extending the back relaxes and relieves the pain. Multiple minute tender nodules may be palpable especially over the painful area. Occasionally multiple penetration of a needle into the fibrous nodules causes the latter's disappearance and relieves the pain. Other rheumatic complaints may exist.

Rheumatoid arthritis occurs in adolescents or young adults and is acute or more commonly insidious in onset. The patient is usually afebrile, rarely has low grade fever, the sedimentation rate is increased, stiffness and limitation of movement of the back, particularly after rest exists. X-ray shows increased permeability of the bone in the neighborhood of the joints as a result of loss of lime salts. The sacro-iliac joints are affected early, the spine later. A line of calcification in the anterior longitudinal ligament is diagnostic.

Episacral lipoma is an entity described in recent years as productive of low back pain but is doubtful by many. It is a fibro-fatty tumor usually the size of a large pea, occurring over the sacrum or iliac crest in the subcutaneous tissue. I have seen one case which might be classified as such and in which the removal of the tumor was followed by relief of pain.

Benign tumors especially lipomas sebaceous cysts, and fibromas are readily identifiable by removal and microscopic examination.

Malignant tumors may be primary or secondary. When involving the bone, destruction without evidence of repair is seen on x-ray. The blood phosphatase is usually high, whereas calcium and phosphorus are normal. Loss of weight, cachexia, lack of fever and biopsy all contribute to the diagnosis. A primary tumor may be sought and found particularly in the thyroid, breast and prostate.

Paget's disease commonly affects the pelvis and spine. The bone appears fuzzy, the cortex is thickened and the medulla is encroached upon in the vertebrae. Deformity of the pelvis as a trefoil contour may result from pressure of weight bearing. The blood phosphatase is extremely high, calcium and phosphorus normal.

Acute osteomyelitis produces severe pain, high fever, localized swelling, redness and tenderness and a high leucocyte count with a marked preponderance of polymorphs. Within the first 10 days the x-ray is negative. Later an area of destruction is seen. It usually follows an insignificant appearing trauma.

Chronic osteomyelitis causes x-ray evidence of destruction and sclerosis, irregular in distribution. Sequestra may be present and discharge from open sinuses. Multiple scars of previously healed sinuses indicate a prolonged history. The temperature rises when the sinuses are obstructed while the process is active.

Pilonidal sinus is indicated by a minute opening near the lumbo-sacral junction or below. The presence of infection without drainage is evidenced by a tender swelling superior to the opening and fever.

Syphilis of bone produces areas of extreme sclerosis especially adjacent to joints which are very irregular and narrowed. Pain and tenderness is never extreme and the soft tissues are usually uninvolved. The Wasserman offers additional confirmation. Failure to respond to anti-luetic therapy is common and therefore not diagnostic.

Tuberculosis of the spine causes marked destruction with little bone formation, collapse of the vertebral bodies, and narrowing of the inter-vertebral joints, resulting in kyphosis, muscle spasm, evening temperature, loss of weight, etc.

A cold abscess may form at the affected region or may follow myofascial planes and come to the surface at a distance, particularly in the inguinal region or medial to the anterior superior iliac spine. When the disease process affects the sacro-iliac joint, the x-ray shows marked destruction and obliteration of the joint. The clinical findings are similar to that of strain but the onset is more insidious, the symptoms severe, and the general effect on health is marked.

Fractures are of various types. A fractured ilium is produced by a direct blow. A fractured sacrum usually is part of several pelvic fractures so that an interruption of the pelvic ring is almost always found anteriorly. A fracture of the vertebral body may be caused by a direct blow or a fall from a height. In the latter case, a concomitant fracture of the os calcis is frequently present. The vertebral body is compressed anteriorly and, if the intervertebral disc is ruptured, the adjacent joint may be narrowed. One must be careful to investigate for an associated dislocation and locking of the facets because the usual hyperextension treatment in such a case is not only inadvisable but dangerous. Fractures of the transverse processes must be distinguished from ununited epiphyses which are frequently seen on x-rays and mistakenly diagnosed as fracture, thereby unnecessarily confining the patient. A fracture shows an irregular jagged edge, an interruption in continuity of the cortex, and downward displacement of the fragment. An ununited epiphysis shows regular outline, a cortex which is circumferentially intact, and no displacement. A facet may be fractured and not visualized unless oblique x-ray views are taken. Narrowing of the foramina is suggestive.

Ruptured Intervertebral Disc: Many mistaken diagnoses are made on account of a roentgenologist's lack of appreciation of the anatomy, physiology and pathology of a disc. A frequent finding is multiple small indentations of the superior and inferior aspects of the vertebral bodies. These are the so-called Schmorl's nodes which are due to degenerative changes in the articular cartilage and disc with penetration into the body. This is not productive of symptoms. Commonly in aged individuals or pregnant women, a state of osteomalacia exists, a softening of the bones which reduces the resistance of the vertebra to the expansile pressure of

the disc and allows the latter to bulge into the body. This condition is known as "ballooning" and does not cause symptoms. The only condition of the disc which causes pain occurs when the disc or its contents protrudes into the spinal canal causing pressure or irritation of the nerve roots. This results acutely from a sudden bending or lifting strain or insidiously from occupational strain. Seldom it arises following a debilitating disease or pregnancy. The lumbosacral joint is most commonly involved, the 3rd and 4th lumbar less so. X-ray reveals narrowing of the joint space and injection of radiopaque substance demonstrates a defect. Spinal tap may show increased total protein and the fluid may be under increased pressure, especially if the lesion is high and the block complete. Compressing the jugular veins fails to produce an appreciable rise in pressure (Naffziger sign). The pain occurs about the affected side and frequently may be referred as high as the thoracic region. Tenderness is not constant. Pain in the lower extremity occurs in the sciatic distribution and the sciatic nerve is not tender. Areas of hypoesthesia are found particularly over the lateral aspect of the lower third of the leg, the dorsum of the foot proximal to the large toe, the plantar surface, and the perianal region, depending on the site of the lesion. The Achilles reflex is reduced or absent. If the lesion is in the upper lumbar area, the knee-jerk may be similarly affected. Loss of power is usually minimal. Exaggeration of pain by coughing, sneezing, or straining is a frequent complaint.

Functional decompensation of the back is a diagnosis popularized recently by Emil Hauser. He maintains that the ligamentous and muscular structures will be strained from many causes particularly occupational and postural. This patient shows a lordotic back, stooped, rounded shoulders and protuberant abdomen so that the normal line of static stress is gone and pain is the result. His proof lies mainly in correction of the habitus by a dynamic method with a body cast applied while the patient is in a flexed position.

Condition in the pelvis: Tumors by pressure produce pain in the back. A retroverted uterus causes tension on the sacro-uterine ligaments and a pessary inserted after correction of the dis-

placement should relieve the discomfort. Inflammatory conditions such as pelvic cellulitis and acute prostatitis are productive of back pain.

Scoliosis whether postural or due to other abnormality will cause a strain throughout the back. The lumbo-sacral joint which bears the brunt of the static stresses is more likely to be first affected in this condition.

Conditions of the lower extremities. Any process which alters the mechanics of the lower extremities throws a secondary strain on the spine. A shortened leg, flat feet and abnormal rotation following union of fractured bones are easily identified. The normal weight-bearing line is a straight line that extends from the anterior superior iliac spine, the middle of the patella, and the cleft between the first and second toes. This alignment should be obtained following the reduction of a fracture of the femur or tibia.

FREQUENTLY ENCOUNTERED HEART CONDITIONS

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The marked progress in medical therapeutics has necessitated a better diagnosis and a more complete understanding of the various abnormal anatomical and physiological conditions encountered in the practice of medicine. Electrocardiographic and roentgenologic studies of the heart, when properly interpreted and correlated with the history and the clinical findings, are of great help in diagnosis. Improved diagnosis and treatment, however, are often of no avail if, in our enthusiasm, we ignore the most important rule of medical practice to treat the patient as a whole, and not directing our attention only to the local abnormality. Thus, for example, a myocardial infarction may be successfully treated only to have the patient die from an overlooked failure of the unaffected portion of the left ventricle, or from pulmonary embolus arising in a distant venous thrombosis. Treatment must be individualized to fit the patient. It must not be the mere care of a local condition, based upon a set of inflexible rules. Bed

rest and recumbency, while of great importance in the management of an active myocardial infarction, may be of tragic consequence to an elderly individual or to one with congestive heart failure.

The diagnosis of any heart condition, including coronary disease, should never be made on electrocardiographic findings alone: nor should a normal electrocardiogram ever be accepted as evidence of a normal heart. The main value of an abnormal electrocardiogram, in addition to the information concerning abnormalities of rate, rhythm, and axis deviation which it may afford, lies in evidence which may be obtained of an abnormal initiation or conduction of impulse, as shown by changes in P, QRS, ST, and T, or in the PR and QRS intervals.

The abnormality of conduction may arise in the auriculo-ventricular conduction system, producing various degrees of A.V. heart block such as prolonged PR interval, dropped beats complete block, or bundle branch block. The conduction abnormality may be in the myocardium of the auricles, manifested by changes of the P waves, as in auricular fibrillation or flutter. It may lie in the ventricular myocardium with changes in QRS, ST, or T, as seen in infectious myocarditis or in myocardial infarction. The abnormal conductivity may be purely functional or due to digitalis intoxication. It may also result from anatomic or functional impairment of the efficiency of the myocardium (myocardial insufficiency) or from marked left or right ventricular hypertrophy (strain). In the latter instance the changes are indicative of a good, hypertrophic myocardium rather than of myocardial damage.

It is wrong to ascribe many cardiographic abnormalities to "myocardial damage", a term which is clinically meaningless. It is also a mistake to over-emphasize slight variations in the cardiogram which probably are within normal limits and have no clinical significance. The use of three precordial leads, instead of the single chest lead of the past, has broadened the diagnostic scope of electrocardiography. It has not, however, altered our fundamental concept of the electrocardiogram as a laboratory procedure, valuable in diagnosis only if and when it is correlated with the clinical findings.

Roentgenologic studies of the heart as a diagnostic aid have been to a certain degree neg-

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lected. The standard anterior view of the heart does not usually give any information about the auricles or about the greater portion of the left ventricle which, together with the auricles, is located posteriorly and can therefore be visualized only in the left and right oblique positions. For example, mitral stenosis causes left auricular hypertrophy with counter-clockwise rotation of the heart, and pressure on the left bronchus and esophagus, as may be strikingly demonstrated by left and right oblique x-ray views. Aortic stenosis, insufficiency, and hypertension cause hypertrophy of the left ventricle, not only of its anterior portion which is visualized in the anterior view, but also of its posterior portion which can be seen in the left oblique view.

In the diagnosis of any heart condition it is of the utmost importance to evaluate separately the abnormal anatomical and physiological changes in the heart.

Aortic insufficiency manifests itself by the presence of a diastolic murmur in the second right or third left interspace near the sternal border and by characteristic blood pressure changes, high systolic and low diastolic. Compensation for this condition occurs by corresponding hypertrophy of the left ventricle. While this adjustment is maintained the patient has few complaints and requires little medical attention. When, however, failure of the left ventricle with its accompanying dilatation occurs, the patient experiences first dyspnea on exertion, later shortness of breath at rest, and finally, with advanced left ventricular failure, paroxysmal nocturnal dyspnea. If uncorrected, this chain of events is followed by failure of the right ventricle, producing cyanosis, edema, and possibly death.

Hypertension, by which is meant an increased peripheral resistance to blood flow as evidenced by a high diastolic pressure, is usually compensated for by hypertrophy of the left ventricle which increases the power of the cardiac output as shown by a high systolic pressure. Sooner or later this adjustment may prove inadequate; left ventricular failure and dilatation occur and dyspnea is produced. Although the diastolic pressure may remain at its previous elevated level, the systolic pressure (i.e.: the power of the heart) falls. At this stage of cardiac failure,

hypertension may be called hypertensive heart disease, but it is now the cardiac failure rather than the hypertension which is of paramount importance.

Arteriosclerosis is a degenerative disease affecting the heart, the aorta, and the peripheral arteries. An accident of great medical importance which may occur as a consequence of this degenerative process is coronary occlusion with infarction of the myocardium. During the stage of healing of a myocardial infarct, attention must be directed not only toward the possibility of a rupture of the infarcted area or embolism from a mural thrombus, but also toward the status of the unaffected portion of the myocardium, keeping constantly in mind the possibility of myocardial insufficiency. An infarct of the myocardium may heal without leaving any ill effects; the patient may have no complaints and the electrocardiogram may be normal, the scar tissue producing no interference with normal conduction. Or there may be electrocardiographic evidence of permanent abnormal conduction, indicating the residue of an old, healed infarction and possessing no clinical importance. On the other hand, however, if the patient with a healed myocardial infarct complains of dyspnea on exertion, tachycardia, and weakness, these symptoms are evidence of myocardial insufficiency, calling for prompt and proper treatment regardless of the electrocardiographic findings.

In examining the patient with congestive failure for signs of edema, we must not overlook the pulmonary edema which is frequently associated with right-sided hydrothorax. Edema of the lungs is far more dangerous than the unsightly edema of the legs. This fact is well known to the patient who prefers sitting upright in a chair to lying down in bed. Indeed recumbency increases the load upon the right heart. By the shift of interstitial fluid accumulations from the legs to the chest, the already overburdened circulatory system is further endangered. Digitalis, intravenous mercurial diuretics, and the salt-free diet are important in the treatment of congestive heart failure, but a little common sense exercised in the care of the patient himself, rather than the mere management of his local disease, may prove of great additional value.

If these therapeutic measures fail, if digitalis, diuretics, and salt restriction are of no avail in

far advanced congestive heart failure, we must in many cases blame ourselves and not the medication. How frequently we pay a great deal of attention to murmurs, slight fluctuations in the blood pressure, and minor cardiographic variations, only to overlook the early signs of beginning cardiac failure and myocardial insufficiency! Later on, when the patient returns with signs of right heart failure, when he presents in addition to the dyspnea of left ventricular failure edema of the legs, ascites, enlargement of the liver, and cyanosis — then and only then do we begin to treat our patient and blame the medications for their ineffectiveness.

In cardiac conditions we ought to pay more attention to the functional, and less attention to the anatomical, changes. Watch for signs and symptoms of impaired myocardial function and institute treatment early in order to prevent further undesired complications. In earlier and better diagnosis, with proper treatment promptly instituted, lies the hope of success for our patient.

In conclusion permit me to say just a few words about the prognosis in various cardiac disorders. The prognosis should be based upon an evaluation of the patient's condition, a correlation of the clinical picture with various laboratory findings, and a consideration of possible complications. To base the prognosis upon the electrocardiogram alone is to place undue reliance upon a single sign and may prove disastrous to both the patient and to the physician. For example, the conduction in an area of myocardial infarction may improve but the patient may die from rupture of the heart or from a cerebral embolus arising in a mural thrombus. Complete heart block or bundle branch block resulting from a healed, rheumatic myocarditis may remain unchanged for many years, just as may the residue of an old healed myocardial infarction, and as such neither of these findings are necessarily of any clinical significance. If our outlook in various cardiac conditions seems markedly improved in comparison with the pessimism of the past, it is not due to an unfounded optimism but rather to our better approach, our sounder understanding, and our earlier diagnosis and treatment.

SUMMARY

1) The diagnosis of any heart condition should be based upon a correlation of various

clinical and laboratory findings, including electrocardiograms and roentgenograms. To rely upon a single method of examination is dangerous.

2) The abnormal anatomical and physiological changes in the heart should be evaluated separately and the function of the myocardium should be promptly and properly estimated.

3) Treatment must be directed toward the patient as a whole and not merely toward the local condition. Modify the management to fit the individual.

5) Better and earlier diagnosis and treatment are based upon a sounder approach to, and a not upon mere knowledge of the local disease. greater understanding of, the patient as a whole.

THROMBO-EMBOLIC DISEASE AND PREGNANCY

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Obstetricians and gynecologists are familiar with and have experienced various thrombo-embolic complications in their practices, and most of them adhere to the older teaching of nonsurgical treatment, bed rest, heat or cold. As a result many patients are today semi-invalids because of the residuum of these complications.

The purpose of this communication is to review the anatomy, physiology, pathology of the circulation of the lower extremity, and to direct attention to the need for cooperation between the peripheral vascular surgeon and the obstetrician.

Ninety-five per cent of all thrombo-embolic complications occur or have their origin in the lower extremities, so we shall briefly review the veins draining the lower extremities. They are:

- a. Superficial veins: Long saphenous and short saphenous system.
- b. Deep veins: Planter, anterior and posterior tibial, peroneal, popliteal, superficial femoral and deep femoral and common femoral.
- c. Deep communicating veins between superficial and deep veins.

Valves are present in all veins of the lower extremities. Most of them are bicuspid, some

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unicuspid and some tricuspid. Their cusps face upward to allow the passage of the blood toward the heart only. The number of valves present in each vein varies. In the long saphenous there are ten to twenty. Their function is to support the column of blood in the veins and failure to do so will cause a reverse flow of blood resulting in stasis, dilatation of the vein and eventually passive tissue congestion with edema.

Normally the superficial venous blood of the lower extremities enters the deep veins not only through the long and short saphenous, but also through the deep communicating veins. In varicose veins with incompetent valves the flow of blood is retrograde or downward. This reverse flow causes an increase in the venous pressure and a certain degree of venous stasis in the peripheral circulation. de Takats and Quint found that the venous pressure in some cases to be as high as 210 mm. of water.

As Brodie and Trendelenburg demonstrated, there is considerable reflux of the blood from the deep venous system into the superficial system. Trendelenburg originally pointed out, and it was later confirmed by Ochsner and Mahorner, that an independent venous circulation is present in an affected limb and that some red blood cells never reach the heart. This prevents normal nourishment to the limb involved.

The most common pathologic condition of veins is varicosities. The cause of varicose veins is not definite. The contributing factors are:

1. Heredity (weak congenital valves and poor connective tissue of the walls).
2. Postural, occupations which require long hours of standing or keeping the knees flexed by sitting.
3. Traumatic — athletics, bruises and falls.
4. Pelvic enlargements. Gravid uterus or tumors.
5. Hormonal influences.
6. Constipation.
7. Chronic coughs.
8. Infection.
9. Tight garters.

Incidence of varicosities increases with advancing age. They are found most frequently over 40 years and occur in 10 per cent of all adults. We believe the incidence is much higher than this. The ratio between women and men is as four to one. Eighty per cent of the varicose

veins seen in women begin during pregnancy.

The complications that arise from varicose veins are rupture, which is very rare, and thrombo-embolic diseases.

The thrombo-embolic diseases are thrombophlebitis, phlebothrombosis and pulmonary embolism.

Thrombophlebitis is primarily an infection of the vein wall associated with an elevation of temperature, swelling of the leg and redness over the course of the vein (F. W. Bancroft). The coagulability of the retarded venous blood is altered, shortening the clotting time and predisposing to intravascular clotting. However, only about 10 per cent of these patients throw off emboli. Probably because of the pain the attention of the surgeon is readily directed to the pathology. The distinction between thrombophlebitis and phlebothrombosis has been recently emphasized by Alton Ochsner, De Bakey and F. W. Bancroft.

Phlebothrombosis is characterized by the loosely attached non-inflammatory red thrombus, which readily detaches itself from the vein wall to form an embolism, while in thrombophlebitis the thrombosis is firmly attached and associated with inflammation of the vein wall.

Pulmonary embolism may result from either, but more commonly from the phlebothrombosis.

These thrombo-embolic diseases may be precipitated as follows:

- a. Spontaneous with no known cause.
- b. Following febrile diseases.
- c. Trauma. (In one case the patient while under barbiturate sedation kicked the wall and developed a phlebothrombosis of the veins of the foot).
- d. Difficult obstetrical and gynecological procedures, and possibly third degree lacerations.

The most commonly affected veins are: Superficial varicose veins; long saphenous; plantar veins, calf plexus (anterior and posterior tibial and peroneal), femor-iliac veins, called the deep femoral and external iliae, the pelvic veins and the pampiniform plexus, rarely the short saphenous. Thrombophlebitis may affect the superficial or deep veins.

Clinically the thrombophlebitis of the superficial veins develop signs of local inflammation

such as heat, tenderness, redness, and pain together with palpable clots. The inflammation is usually acute and gradually subsides and becomes subacute or chronic. In the chronic stage it may progress further into an area of cellulitis and break down to form a phlebitic ulcer or phlebitic abscess.

Thrombophlebitis of the deep peripheral veins is associated with a higher incidence of pulmonary embolism. According to John Homans and substantiated by Aschhoff, most of the large fatal emboli develop from thrombosis in the plexus of veins in the calf muscles, which extend into the deep popliteal and femoral veins, where the huge clot breaks off and travels to the pulmonary artery and causes a fatal occlusion.

Clinically, involvement of these veins of the calf is readily recognized by the characteristically extended position of the foot caused by the contraction of the calf muscles. Flexion and extension of the ankle cause exquisite pain in the calf muscles (positive Homans' sign).

Thrombophlebitis of the deep femoral and external iliac veins produces the clinical picture familiar to all of us and known as phlegmasia alba dolens or "milk leg." The affected extremity is swollen, white and cyanotic with a decrease in the skin temperature. The coldness and pallor in the presence of inflammation and pyrexia distinguish this condition more readily. This phenomenon, as established by Alton Oschner and his co-workers, is due to an ischemia caused by a spasm of the arterial system of the involved limb. This spasm is caused by impulses relayed from the lumbar sympathetic ganglia originating from the involved vein.

The cause of the edema is phlegmasia alba dolens is controversial. de Takats stated it is caused by widespread thrombosis involving not only the deep femoral and external iliac veins, but also their tributaries, resulting in a mechanical blocking of the return flow of venous blood.

John Homans contends that the edema is caused by obstruction of the major lymphatic vessels, secondary to a perivenous lymphangitis which is associated with the thrombophlebitis.

Clinically, the phlegmasia alba dolens usually disappears shortly after injection of novocain into the lumbar sympathetic ganglions. This blocks the vaso-constrictor impulse and results in a vasodilatation. The increased arterial blood

supply relieves the anoxia of the capillary endothelium restoring the normal permeability and permits the passage of fluids into and out of the tissues.

Phlebothrombosis or the intravascular clotting of blood without a phlebitis is unassociated with any local or general inflammatory reaction.

Instead of pyrexia, local signs of inflammation, swelling and edema there are relatively few clinical manifestations. This is more dangerous than thrombophlebitis because embolic phenomena occur more readily. There is little or no venous obstruction. It may not be recognized until pulmonary embolism has occurred. An important sign, as demonstrated by Homans, is the tenderness on forced dorsiflexion of the foot. Associated with this may be some tenderness in the affected vein and an increase of from one to two inches in circumference in the involved limb. The diagnosis of phlebothrombosis is made on these findings:

1. Increased pulse rate, out of proportion to the temperature.
2. Regional pain and tenderness.
3. Presence of a palpable clot.
4. Homans' sign of painful dorsiflexion of the involved limb.
5. Increase in the sedimentation rate.

TREATMENT OF THROMBO-EMBOLIC DISEASES

A. *Prophylactic*: Since varicosities are definitely predisposed to infection and to intravascular clotting, it is of the utmost importance that the varix be adequately treated with prophylactic measures in order that complications be prevented.

1. Prevention of venous stasis in the extremities during postpartum or postsurgical period by
 - a. Maintaining arterial pressure.
 - b. Maintaining postpartum and postoperative tone.
 - c. Maintaining normal drainage by having patient in Trendelenburg position during surgery.
 - d. Refraining from tight abdominal binders and dressings.
 - e. Insisting on early and frequent movements of the extremities immediately after delivery or operation.
 - f. Encouraging deep breathing, if necessary with carbon dioxide and oxygen mixture.

2. Prevent hemoconcentration from loss of body fluids as in cases of vomiting, diarrhea, and draining exudates. Hypertonic solution intravenously maintains normal protein, hydration and normal mineralization.
3. Avoid infections by rigid aseptic technic.
4. Correct cardiac conditions before delivery or surgery.
5. Correct anemias.
6. Avoid chilling of the body after delivery or operation. This causes a vaso-constrictor effect.
7. Avoid or decrease smoking as this causes vasoconstriction and favors vascular retardation.
8. If indicated, use anticoagulants, such as sodium thiosulfate, heparin and dicoumarol.
9. Do not allow patient to remain in stirrups or lithotomy position too long.

B. Active Therapy:

1. Thrombophlebitis
 - a. Conservative.
 - b. Lumbar sympathetic block.
 - c. Vein ligation.

a. *Conservative management* is carried out in the absence of any clinical signs of diminution of arterial pulsation and of swelling with cyanosis and pallor. It consists of:

 1. Absolute bed rest.
 2. Forty-five degree elevation of affected limb.
 3. Heat of 110° F. to affected limb.
 4. Restriction of fluid intake and salt in the presence of edema.
 5. The use of salyrgan or ammonium chloride to reduce edema.
 6. Anticoagulants.
 7. Physiotherapy after the patient is temperature free.

b. *Lumbar sympathetic block*: This form of treatment was first described by Leriche and Kulin of France in 1934 and popularized in this country by Ochsner and De Bakey. The technic is as follows: Ten cubic centimeters of a 1 per cent novocain solution is injected into the first four lumbar sympathetic nerve trunks, using a 20 gauge needle, 10 cms. in length. The needle is inserted vertically until the transverse processes of the first four lumbar vertebrae are reached, then the needle is inserted medially until the anterior lateral surface of the vertebrae is encountered, at which point the nerve trunks are situated, and there the procaine hydrochlor-

ide is deposited. The injections are repeated in a day or two after which the clinical symptoms subside. The best results are obtained in early cases.

c. *Vein ligation* in thrombophlebitis is reserved for cases which have failed to respond to conservative management and show evidence of extension of the thrombophlebitic process and great danger of a pulmonary embolism. Such men as Fine, Frank, and Starr, however, advocate the immediate division of the involved vein as the treatment of choice, and believe this is the only sure method of preventing pulmonary embolism.

II. *Phlebothrombosis*: When a diagnosis of phlebothrombosis is made emergency treatment is imperative. According to Bancroft there are two methods of procedure:

1. Simple proximal ligation.
2. Thrombectomy.

The simple proximal ligation is done early in the disease when it is possible to expose and ligate the vein above the clot. An elastic bandage is then applied about the involved limb and early ambulation is insisted upon.

Thrombectomy is used in those cases in which the clot is found to extend upward in the femoral vein beyond Poupart's ligament into the iliac vein, often as far as the bifurcation of the vena cava. Bancroft's technic is as follows: Under simple infiltration of one per cent novocaine if there is lung involvement, or cyclopropane, if not, an incision is made two and one-half inches long over the course of the femoral artery as it presents below Poupart's ligament. The long saphenous vein is identified and used as a guide to the femoral vein. Two stay sutures are placed about the vein and a longitudinal incision is made. The blood clot that is present is picked up with a fine clamp, after which a small glass tube is inserted into the vein and the clots aspirated until free bleeding occurs. The vein is then ligated above and below the incision and the intervening piece excised. If the thrombus extends beyond the point where a ligature could be applied, the postoperative use of anticoagulants is necessary. However, in obstetrical patients anticoagulants should be added only after the eighth post partum day. Incidentally, leeches are still used by some men

to obtain the hirudin effect which is an anti-coagulant similar to heparin.

III. *Pulmonary embolism*: The occurrence of embolism is recognized clinically by the acute onset of symptoms, such as:

- a. Moderate or mild stitch-like pain in the side.
- b. Severe retrosternal pain.
- c. Dyspnea.
- d. Cyanosis.
- e. Cough, with or without bloody sputum.
- f. Rise in temperature.
- g. Weak, rapid pulse.
- h. Restlessness.
- i. Severe drop in blood pressure.
- j. Collapse.

Pulmonary embolism often occurs when the patient is about to get out of bed, go to stool, or when leaving the hospital. The treatment is an emergency one and the following procedure is advocated by de Takats.:

- a. Immediate administration of 100 per cent oxygen by mask or nasal catheter.
- b. Papaverine, grains one-half, intravenously to relieve pain.
- c. Atropine, grain 1/60 or 1/75 intravenously to relax the bronchial spasm.

Embolectomy can be done if a surgeon with the requisite skill is at hand.

CASE REPORTS

Case 1.—M.S., gravida II, para II, aged 28, was delivered with prophylactic low forceps and episiotomy after a four hour labor. On the fifth postpartum day she developed pain in the left calf and a temperature of 99° F. which gradually rose to 101°. A diagnosis was made of thrombophlebitis of the peripheral vein. Conservative management was carried out, i.e., absolute bed rest, 45 degree elevation of affected limb and heat. Recovery was slow; the pain and swelling persisted. On the fifteenth postpartum day a paravertebral lumbar sympathetic block was done. The pain and swelling subsided and the patient was dismissed on the thirty-ninth hospital day. There has been no recurrence.

Case 2.—A.B., gravida II, para II, aged 33, delivered spontaneously after a three hour labor and on the eighth postpartum day developed pain in the right groin. The temperature was 99° F., pulse was 120 to 130, and a clot was palpated. A diagnosis of phlebothrombosis of the femoral vein was made. A thrombectomy and ligation of the femoral vein was done immediately under local anesthesia. The patient made an uneventful recovery and was discharged on the thirty-sixth postpartum day.

Case 3.—L.D., gravida II, para II, aged 34, was delivered in 1943 and shortly after discharge from the

hospital developed swelling of the left leg. Conservative management was instituted. She remained in bed for three months but the swelling returned upon arising and resuming her housework. She returned for treatment and was referred to Dr. Barone. A diagnosis of thrombophlebitis of the deep femoral and external iliac veins was made and lumbar sympathetic block and ligation were done on June 1, 1945. The recovery was excellent and there has been relatively little swelling since the operation.

Case 4.—H.L., gravida II, para II, aged 32, delivered spontaneously after a nine hour labor. On the fourth postpartum day she developed pain in the left thigh with a temperature of 99° F., pulse 80 and respirations 20. A diagnosis of thrombophlebitis of the long saphenous vein of the left thigh was made. Conservative management was instituted and the patient was dismissed in good condition on the nineteenth day.

Case 5.—M.O.K., gravida I, para I, aged 23, was delivered by low cervical cesarean section after a twenty-eight hour labor, with the bag of waters ruptured. In twenty-four hours the temperature was 101° F. and despite penicillin and sulfonamides, it rose to 104° F. on the fourth postpartum day when she complained of severe pain in the right calf. A diagnosis of thrombophlebitis of the deep veins of the calf was made. Conservative management was instituted and the patient responded. She was discharged on the eighteenth postpartum day.

Case 6.—B.P., gravida IV, para III, aged 32, was admitted to the hospital at the eighth month of gestation with a history of pain in the left femoral region for two days. On admission, temperature was 98.6° F., pulse 120, respirations 30. Conservative management and penicillin were instituted but the pain became increasingly worse and consultation was called the next day. A diagnosis of phlebothrombosis of the left long saphenous and femoral veins was made and a thrombectomy and ligation under local anesthesia were done by Dr. Barone. The patient made an uneventful recovery and was discharged on the seventh postoperative day. She returned to the hospital and delivered uneventfully at term on June 13, 1945. It is of interest to note that on her first admission, she had a normal temperature with a pulse of 120, which is diagnostic.

Case 7.—S.L., gravida IV, para III, aged 37, was seen at the office on two occasions with the complaining of a gradually increasing pain in the right leg. The first time no clot was felt but on the second visit a week later a distinct, early palpable vein was noticed. A diagnosis was made of phlebothrombosis of the right long saphenous vein and she was referred immediately for surgery. A thrombectomy was done on September 25, 1945. Relief was instantaneous. She went to term and was delivered uneventfully on October 5.

Case 8.—E.B., gravida II, para II, was delivered on October 14, 1943, following a six hour labor. On the eighth day she developed a temperature of 99.6° F. The next day she developed pain in the right leg

which subsequently became swollen and edematous. Under conservative management and sulfonamides the patient improved but the leg continued to swell daily until she was referred to the consultant on May 16, 1944. He advised ligation which was done on May 17th. The improvement was gradual but steady and six months after the ligation there was no swelling nor discomfort.

Case 9.—H.B., gravida II, para II, had hypertensive toxemia. Hypertonic glucose solution was given intravenously before the spontaneous delivery of an immature infant. She made an uneventful recovery until the fourteenth postpartum day when on being allowed out of bed to go to the bathroom she fainted. On reviving she complained of a heavy feeling in the chest and her blood pressure was 60/40. A diagnosis of pulmonary embolism was made and confirmed later by x-ray examination. She was given paraverine, grains one-half, intranasal oxygen and atropine intravenously. Her recovery was excellent, and she was discharged on the twenty-eighth hospital day.

Case 10.—Mrs. P., gravida I, para 0, aged 21, very obese, was admitted to the hospital on June 8, 1943. Dr. Walsh was called in consultation and made a diagnosis of pregnancy near term with pulmonary embolism. Despite adequate conservative treatment, the patient died June 9. A postmortem cesarean section was done and a living male in poor condition was delivered; it died the next day.

Case 11.—M.H., gravida II, para II, aged 35, was admitted to the hospital on June 25, 1938, in active labor. The fetal heart tones became irregular and outlet forceps was done. A third degree laceration resulted which was immediately sutured. The patient expired on the eighth postpartum day while getting on the bedpan. The diagnosis was pulmonary embolism. No autopsy was obtained.

Case 12.—L.S., gravida I, para 0, was admitted to the hospital on January 3, 1946, with painful thrombosed hemorrhoids and five months' gestation. Hemorrhoidectomy was done on January 4th under gas anesthesia. She made an uneventful recovery and was discharged January 12th. Delivery uneventfully by outlet forceps and episiotomy on August 28, 1946.

SUMMARY

A total of twelve cases of thrombo-embolic disease and pregnancy are presented; eight postpartum complications and four antepartum. Two of the antepartum cases are the first we could find in the literature that had had vein ligations for phlebothrombosis.

The treatment of venous complications, both conservative and radical are outlined.

We urge closer cooperation between the peripheral vascular surgeon and the obstetrician in all suspected venous complications.

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DISCUSSION

Dr. Geza de Takats: Dr. Walsh brought before this society a subject which has not been discussed lately in the light of late developments of thrombo-embolic disease. In a few moments I would like to relate to you our present attitude with regard to treatment.

In the first place, if the pregnant woman suffers from varicosities, certainly the venous system should be treated just as if she were not pregnant. Arbitrarily we have treated them up to the seventh month. It should be emphasized that a great many pregnant women carry enlarged veins and suffer severely from increased deep venous pressure. It is useless to ligate their veins because the deep venous pressure will appear somewhere else. Not all these patients are tested for deep venous obstruction.

A second point which I think is worth emphasizing is that late mobilization is to be avoided. I do not know what the consensus of opinion is today in the obstetric literature about letting patients get

up early after delivery. Every twenty or thirty years — at least in the surgical literature — this early mobilization comes up again. There is no question but early mobilization has been a great factor in reducing thromboembolic disease in the general surgical patient.

When we come to the treatment of early deep venous thromboses, I think your method of approach should vary according to the level at which the thrombosis is present. If early plantar vein or calf muscle thrombosis is diagnosed, such a woman should have a ligation of the superficial femoral vein. Ligation of the superficial femoral vein without deep femoral obstruction leaves no residual edema provided no further thrombosis takes place. This may lead to a second consideration, i.e. that every patient who has a deep venous ligation should have an anti-coagulant because even a low ligation may result in edema. When, however, a patient is admitted with iliofemoral thrombosis, then, of course, extraction of the thrombus and immediate femoral ligation is necessary. It is obvious that this will lead to persistent edema. We have seen these edemas two to three years after ligation. It must be said that these patients would have this edema whether they had vein ligation or not, because the thrombus was in the vein.

As far as doing sympathetic blocks, we have been a little more conservative. I think it is perfectly obvious that the indication is a rare one. Paravertebral block is a simple procedure and can be readily learned by a resident. To block every case without vasospasm, particularly the bland thrombus, is not only unnecessary but probably harmful. I have seen three patients in consultation who developed pulmonary embolism after paravertebral block.

What should interest the obstetricians more than anything else is whether anticoagulant therapy can be given immediately after delivery. One would think that postpartum bleeding might be increased. Recently it has been shown that postpartum bleeding has not occurred, so if the patient requires anticoagulant therapy that should be begun not on the seventh or eighth day but immediately after delivery. I think it is fairly well proven that if a thrombosis occurs after trauma or after surgery the initial treatment should be given in the first few days. If you are going to prevent thrombosis at all, anticoagulant therapy should be given immediately. It will be probably the duty of some large obstetrical departments to put patients who have had thrombosis once before on anticoagulant therapy starting on the day of delivery to see whether the postpartum bleeding has increased. The only available statistics I have seen recently came from Ohio State University in which it was stated that postpartum bleeding had not increased.

One word should be said about the treatment of pulmonary embolism. If there is the slightest evidence of an embolus in the lung oxygen should

be given at once followed by papaverine and atropine. Unfortunately about 50 per cent of cases of pulmonary embolism occur without preliminary signs in the periphery, so it is not possible to give preventive treatment.

I would like to congratulate Dr. Walsh on his excellent paper and hope it will stimulate more interest in this field among gynecologists and obstetricians.

Dr. Frank J. Walsh (closing): I wish to thank the Executive Committee and the members of the Chicago Gynecological Society for permitting me to read this paper, and to thank Dr. de Takats for his discussion.

I hope that at least this paper will stimulate further work in the field of thrombo-embolic disease.

TREATMENT OF NEUROLOGICAL DISORDERS WITH TRIDIONE

ERICH LIEBERT, M.D.

ELGIN

Since the publication by Everett and Richards¹ on the anti-convulsive action of Tridione (3,5,5 Trimethyloxazolidine — 2,4 — dione) in 1944, this drug has been used by several investigators to study its effect in men. Thorne² in a preliminary report found that out of 11 patients suffering from organic brain diseases complicated with grand mal convulsions 3 were better controlled with Tridione than with phenobarbital or Dilantin, while the remaining 8 patients had either more seizures than before or were completely unchanged. According to DeJong³ Tridione in a dosage of 5 grains t.i.d. does not seem to be sufficiently effective however, in conjunction with other anti-convulsive agents it almost completely controlled psychomotor seizures.

Lennox^{4,5,6} stated that petit mal seizures, myoclonic jerks and akinetic seizures have disappeared or practically disappeared in two-thirds of the patients after Tridione was administered.

Since petit mal attacks do not yield readily to any drug thus far used in epileptic disorders, Tridione with its inhibiting effect on petit mals would be of great value in general practice.

Tridione was furnished us in small quantities by the Abbott Laboratories. Patients who had been under treatment for a long period of time and whose grand mal attacks were controlled

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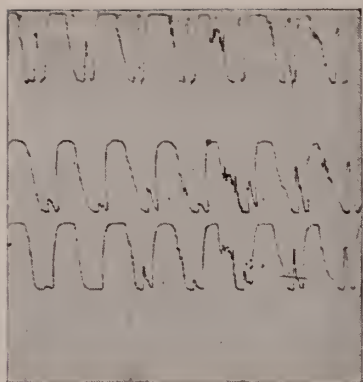


Figure 1-a Slow wave activity preceded by a fast discharge before Tridione.

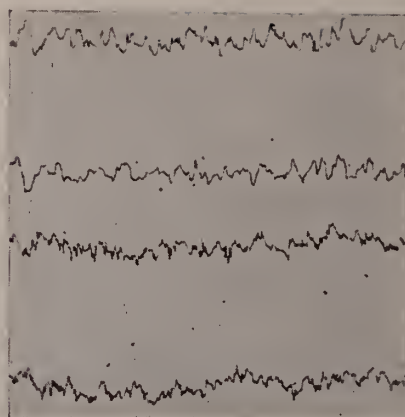


Figure 1-b Normal chart after Tridione administration.

by bromides, Dilantin, or phenobarbital, but who still suffered from a large number of petit mal attacks were used in this study. Tridione was added to their medication, no other changes were made.

The results obtained in our series are quite encouraging, although they do not seem to be as good as those reported by other authors. Most of the patients were observed for a period of one year or more.

Outstanding were the results obtained in four children up to the age of 13, who had a great number of petit mal attacks, one of them 50, and another more than 80 daily. As soon as Tridione at a dosage of $7\frac{1}{2}$ -15 grains daily was administered all petit mal attacks ceased completely. These children who had daily seizures for more than a year suddenly went without attacks of any kind and could successfully resume their school activities. All children were free of attacks for a period of 11, 8, and 5 months, while one child whose seizures had stopped for about 9 months has now a recurrence of these attacks of about one or two a week; previous to the administration of Tridione more than 80 attacks were counted in this child. Accordingly the electroencephalogram also observed a marked improvement. Figure 1 shows the marked reversal from a spike and wave system to a normal chart.

In one child of the above mentioned group Tridione was withdrawn 2 months ago. This child did not have any recurrence of the attacks since. This agrees with Lennox's statement that seizures failed to return when the drug was

withdrawn. in contrast to all other anti-convulsive agents whose withdrawal usually leads to an increased number of attacks.

Tridione did not have such an outstanding effect in patients in the older age group. Six patients were treated in this group, 3 having both petit mal and grand mal seizures while the other 3 only had petit mal attacks. The grand mal seizures were controlled by bromides, phenobarbital or in combination. With the addition of Tridione the petit mal attacks stopped for a short time, but recurred soon although not in as large a number as before; increasing the dosage up to 6 capsules a day (30 grains) of Tridione did not eliminate these attacks.

Patient, E. M., who had from May 1, 1944 to April, 1945, 363 petit mal attacks under caffeine, benzedrine, and phenobarbital medication, was started on Tridione in May, 1945, and since that time has had 183 such seizures.

Tridione had to be withdrawn after one month in three patients not included in the above number who suffered from combined grand mal and petit seizures. These patients complained that Tridione made them feel drowsy or that they had more grand mal attacks than before. They could not be convinced to continue the medication.

Generally it may be stated in our experience in children petit mal attacks can be very well controlled with Tridione but in patients of the higher age group the effect is not as startling.

Tridione was also used in children who although grand mal attacks were rare, presented



Figure 2 Skin eruption appearing 2 weeks after the administration of Tridione.

a problem from a behavior standpoint. They were restless, disobedient, and unmanageable. Tridione was used in three of such patients whose grand mal seizures had been controlled with Bromides or phenobarbital. In all three a marked improvement in the behavior could be noted. One child, 9 years old, could not be made to go to school, she was destructive, hit the parents and playmates, and presented a serious behavior problem. Luminal made the child sleepy but did not improve her behavior. The addition of Tridione to the phenobarbital medication seemingly caused a complete reversal of this child's attitude. The child is going to school and has made a good adjustment for more than 6 months, she is friendly and cooperative.

Behavior disturbances in adult epileptics as they are met in state hospitals could not be influenced by Tridione.

In 2 cases of severe athetosis, eight — 5 grain capsules daily of Tridione reduced the hyperkinesia of these patients to a marked extent. Although the patients are not entirely free of movements, the athetosis is so markedly diminished that the patients are comfortable for the first time in many years. Both of them say that they "cannot get along without Tridione." Patients with choreiform movements and ticks did not show any beneficial effects.

Toxic effects of Tridione were noted in two of our patients. One child had a skin eruption. (Figure 2)

Since the child had been free of spells for the first time in 2 years (80 attacks daily) the parents were unwilling to discontinue Tridione.

The rash disappeared one week later without any change in the dosage (7½ grains). Two months later the rash re-appeared but lasted only for 2 days. One patient complained of "snow blindness." He has such a severe photophobia that the drug had to be discontinued. Ophthalmoscopic examination did not reveal any objective findings.

SUMMARY

Tridione (Abbotts) can stop petit mal attacks especially in children while in adults its use is only of limited value. Behavior disturbances in children with epilepsy were also markedly improved. Athetoid movements were beneficially influenced. No permanent toxic changes were observed.

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ACUTE SINUSITIS IN CHILDREN

GLENN J. GREENWOOD, M.D.

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The high incidence of paranasal sinus disease in children is attested to by the frequency with which prolonged or repeated common colds are seen to linger in these individuals. Neglect in recognizing the presence of this pediatric problem helps to lay the foundation for the future development of many respiratory ills.

Early in this century Coakley¹, Skillern² and Dean³ noted the prevalence of this entity in children. Some years later the frequency of suppurative sinus lesions was noted to aggregate 22% by Mollison⁴, 24% by Crooks⁵, 30% by Carmack⁶ and 30.6% by Ebbs⁷. The latter's

Read at Annual Meeting, Illinois State Medical Society, May 16, 1946, Chicago.

From The Children's Memorial Hospital and the Department of Otolaryngology, Northwestern University Medical School.

figure was compiled from 496 autopsy records.

Embryological evidence of the paranasal sinuses is seen in the tenth week of foetal life⁸. The maxillary and ethmoidal sinuses are present at term. The sphenoidal sinus does not invade the body of the sphenoid bone until the third year of life. The frontal sinus, rarely of clinical significance up to the tenth year, may, however, as early as the third year have considerable diameter in the horizontal plane. The posterior ethmoid cells at term occupy a greater area than the anterior, though the latter more often acutely complicate the orbital cavity. Reasons for this are seen in the lamina papyracea which may, in obstructive states of the ethmoidal labyrinth, be seen to bulge into the orbital cavity⁹. Infection may enter in a number of ways; as through bony dehiscences, by way of the blood vessel tessellations be blood-borne or invaded directly by lamellar necrosis.

The loose areolar tissue of the ethmoid lends itself well to edematous changes as seen particularly in allergic states.

Up to the third year the greatest dimension of the maxillary sinus is its length. The tooth buds, both deciduous and permanent, lay in the maxilla and premaxilla bones. Until they enter the alveolar process, thence erupting, there exists little room for the maxillary sinus to develop. As the teeth erupt, the antral floor descends below that of the nose, enabling the inferior meatus to serve as a route in the approach to the maxillary antrum. Up to this time only the middle meatal path was intranasally available.

Although the eighth to the twelfth year has been given as the earliest time in which to approach safely the Antrum of Highmore by way of the inferior meatus, it is to be remembered that great variations occur and that roentgenograms are a better guide than the chronological age.

In this consideration of sinus disease in children, we will confine ourselves, for the most part, to the acute purulent type of infection.

Because of the fact that no barrier exists between the mucosa of the nose and the paranasal sinuses, infections of the upper respiratory tract elicit varying degrees of pathology in these accessory sinuses.

The mucoperiosteum lining the nasal sinuses is functionally active in the dual process of growth and repair. Normally the cilia ac-

tively propels the mucus coat toward the sinus ostium. If obstructed by edema, discharge, polypi, etc., there results congestion, swelling, ciliary stasis and stagnation with infection, resulting in the formation of pus within the sinus involved.

If the sinus opening is adequately patent, spontaneous recovery is the rule. If blockage continues, the cilia become destroyed and ulcerative lesions develop, being aided in part by the liberated protolytic enzymes of the degenerated phagocytes. These enzymes were originally intended for bacterial lysis.

Bacteria may next invade the sub-epithelial layers, and if the sinus be inadequately treated, it may become subacute. In the underlying stroma serum may collect. Round cell or eosinophilic infiltration may occur. Later abscesses may form. Meanwhile, the surface epithelium may return to its normal function with adequate ciliary action, the underlying thickened stroma remaining in situ.

In this latent state, bony wall changes may also occur. If the soft tissue swelling causes sufficient pressure to provoke vascular tasis, necrosis of these bony walls may even ensue.

Many factors, both general and local, predispose to sinus disease in children.

Heredity is a factor moulding sinus structure. A child's sinuses as well as its facial features resemble those of its progenitors.¹⁰ Those things affecting general growth and development influence the sinuses. Food stuffs, vitamins and internal secretions play their integral part. Environmental factors incident to dwelling in the congested localities of temperate climates play a role in the causation of sinus pathology.

However, infection and allergy, separately or together, still constitute the main cause of sinus disease.

In allergic states foods up to the age of five are the chief offenders. Thereafter the inhalants are the most irritant.

Locally a number of factors predispose to involvement of these sinuses. Septal deviations and exostosis, hypertrophied turbinates, all may cause unilateral or bilateral obstruction. Foreign bodies may block one side of the nose.

Allergy's polypoid degenerative changes and polypi impede nasal function.

Chronically infected or a hypertrophied pharyngeal tonsil also predisposes to a sinus in-

fection. An adenoid mass sufficiently large may block secretions in the upper posterior part of the nose, thereby hampering ciliary streaming toward the nasopharynx. Stasis is seen to occur, permitting stagnation of the nasal discharge. If, as shown by Linton,¹¹ stagnation last 24 hours, the mild bactericidal action of the nasal secretion becomes lost and, instead, a good cultural medium for the propagation of pathogenic microorganisms results.

Any virulent organism introduced into the nose may cause a suppurative lesion of the nasal sinuses. Staphylococci abound in children. The bacteria recovered from a sinus washing, as a rule, are those cultured from the nose. Crooks⁵, however, found Staphylococci most frequent in the nose, whereas pneumococci were oftenest obtained from antrum cultures.

As to the symptoms and signs of this entity, it is to be noted that of the former malaise, anorexia, fever and chills may usher in a severe purulent sinus infection. A history of repeated colds occurring at the same time each year may point to an offending allergen as an exciting factor.

If the nasal stuffiness, though alternating in type, is more pronounced upon one side, an anatomical obstruction may be the offender. Obstructions in the nose are of greater moment when interfering with nasal function in the immediate region of the sinus ostium.

If the purulent discharge persists in being unilateral, one must differentiate between a sinus infection, a foreign body, a nasal polyp or a Klebs-Loeffler involvement.

A nasal smear should be taken in all cases of an acute purulent sinusitis. An acute allergic sinusitis may possibly simulate an acute purulent sinus infection in every way except that the nasal mucosa is not hyperemic. A cytological study shows eosinophiles predominating. However, an allergic and infection state may co-exist. The eosinophiles, if the case is basically allergic, may, in the presence of the acute infection, disappear, returning only after the purulent state has subsided.

A pharyngitis always accompanies a purulent nasal sinusitis. Often the infection, after starting in the nasopharynx, is kept up by the sup-

puration from the infected sinus, a vicious cycle thus becoming established.

Cough is a variable factor. Votaw,¹² studying subepithelial extension from the upper to the lower respiratory tract, concludes that the lymphatic-hematogenous route and the tracheal pathway are the *significant* avenues of extension.

If a sinus empties early in sleep, cough may occur soon thereafter. However, should a sinus ostium be obstructed and sleeping posture be such as to delay flow of a tenacious sinusal discharge, cough feasibly may be greatly prolonged. Cough from mediastinal gland involvement secondary to a purulent sinus infection may occur. A croupy cough denotes subglottic irritation.

Headache is rare before the age of ten. Its distribution is similar to that found in adults, as portrayed by Skillern.¹³ It may, however, be bitterly complained of in complications of an acute purulent sinus infection.

When the olfactory fissure becomes obstructed, impairment of the sense of smell occurs. It may be seen in either an allergic or a purulent ethmoiditis. The sense of taste is proportionately affected. A blocking ethmoiditis upon one side with an obstruction upon the other, each closing their respective olfactory fissure, may also render a case anosmic.

Otitis media and/or conjunctivitis occurring and persisting upon the same side should direct attention to a possible latent or occult purulent sinus infection.

The adenoid fascies associated with mental apathy is more often the result of naso-sinusal pathology than the hypertrophied pharyngeal tonsil. Crooks⁵ believes it a pity that such a term as "the adenoid fascies" was ever coined.

Ehlers¹⁴ has called attention to the frequency with which collateral orbital edema or cellulitis arises from paranasal sinus infection. Gifford¹⁵ accords sinus infection the causative factor in 50% of these cases. It usually results from an acute suppurative ethmoiditis, particularly in infants. Purulent frontal sinusitis is next in frequency, while the maxillary sinus seldom complicates the orbital cavity without an osteomyelitis being present.

Dean¹⁶ has directed attention to the association of acute purulent sinusitis with systemic compli-

cations, such as nephritis, joint infection, diarrhoea, vomiting and loss of weight. He believes it axiomatic that if acute purulent sinusitis be the etiologic factor, the infection should be eradicated as soon as possible.

In infants and young children infections of the teeth, tonsils and paranasal sinuses elicit frequent attacks of pharyngitis and enlargement of the juglo-digastric glands. Consequently, if the teeth and tonsils can be eliminated as the cause, we have fairly good presumptive evidence of the sinus infection as being the offender.¹⁶

In arriving at a diagnosis of purulent sinus infection, the history having been fully taken, examination of the nose is best facilitated by anterior rhinoscopy and the use of the nasopharyngoscope.

By anterior rhinoscopy one determines the presence or absence of nasal discharge and its character. One notes the location of septal deformities, the character of the turbinates and the state of the nasal mucosa.

With the aid of the nasopharyngoscope the vault of the nasopharynx may be inspected. The location, character and amount of discharge may be noted. Occasionally a sinus ostium may be visualized. If no pus be present, hyperemia, edema or hyperplasia about or in the vicinity of a sinus ostium may implicate the sinus or sinuses involved.

In an allergic state where the mucosa is pale and edematous an abundant transparent mucus discharge may be seen. A nasal smear, as previously noted, shows eosinophiles in excessive amounts.

While in a purulent nasal sinusitis the nasal mucosa is hyperemic and the smear shows many polymorphonuclear leucocytes to be present.

In a combination of the above two states, both types of cells may be present, variations in cell count depending on whether the allergic or infection state predominates.

Transillumination, radiography and in purulent maxillary sinusitis, aspiration of the antrum contents are other diagnostic aids.

Transillumination is not satisfactory in infants and young children. However, it may derive some questionable usefulness when comparing like sinuses of opposite sides if the dental

eruptive state is noted to be similar upon the two sides.

X-ray examination is essential. Both a postero-anterior and lateral roentgenogram should be taken. Besides anatomical information, it permits a study of both the soft and bony tissues. In the soft tissue structure one looks for the thickness, density and contour of the mucosa. It is well to recall that thickened membrane, mucopus, pus and cystic contents cast about the same density.¹⁷ The amount of displaced air may be noted. A study of the nose together with a good radiograph determines the condition of a sinus.

By aspirating a maxillary sinus' contents then making a cytological and bacteriological study, final proof of its state is established.

With the aid of a postero-anterior radiograph outlining anatomical details, puncture by way of the inferior meatus may be well effected under nitrous oxide and oxygen anesthesia. After the patient is awakened, he is maintained or placed in the Crooks'¹⁸ position and the contents gently aspirated.

Prognosis of acute purulent sinusitis in children is good providing it is adequately treated. In those cases secondary to one of the acute exanthemata, where necrosis of the bony wall is present, it should be guarded.

In allergic states the outlook is good if the offending allergens can be controlled.

The persistence of a juvenile sinus resulting from inadequate ventilation and drainage may result in a chronic sinusitis at maturity.¹⁹

In the management of acute purulent sinusitis in children general pediatric care is paramount. Bed rest, proper ventilation and hygiene coupled with an adequate diet are essential. Salicylates for pain, alkalinizing citrous juices and the forcing of fluids are standard methods of therapy.

In those acutely ill cases adequately early general specific sulfonamide therapy is of pertinent value.

Locally, measures to further aeration and drainage are in order. One per cent ephedrine or one of its related synthetic compounds in a physiological salt solution may be dropped into the nose every two to four hours, as the case demands.

Tremble,¹³ noting the tendency of nasal secretions to become acid during recovery states, and

recognizing the merit of allantoin, the maggot derivative to act synergistically with sulfonamides, has compounded a prescription incorporating 10% sulphathiazole crystals, 1% ephedrine sulfate, and ½% allantoin in an isotonic suspension, with a PH of 5.8. He believes this suspension theoretically sound in nasal therapeutics.

If tenacious secretion obstructs the nares, gentle suction with a soft rubber-tipped aspirator is an efficient procedure and provokes but little trauma.

Hot, moist packs are effective, especially after the congestive stage has passed, and when the sinus ostium is patent.

Antrum lavage may be resorted to after the acute stage of the infection has subsided where drainage is inadequate or unduly prolonged.

If acute orbital complications secondary to a purulent ethmoiditis be present and the local nasal therapy be ineffective, external incision and drainage may be instituted. It should be placed at the orbital margin and directed subperiosteally. Intranasal ethmoid operative interference risks damage to the cribiform area and the roof of the ethmoidal labyrinth.

Should a maxillary sinus operation be necessary, an intranasal anastomosis is the procedure of choice. If more extensive interference is advisable, extending this opening forward to its junction with the facial surface permits more adequate inspection with the least danger of damage to the tooth buds.

If, in a fulminating frontal sinus infection, it is thought advisable to interfere operatively, a trephine approach through the floor will often permit the lesion to subside. Later, if resolution be not complete and further exploration desired, it can be more safely undertaken.

In the prophylaxis of purulent nasal sinus disease in children, it is requisite that all those conditions predisposing to this be corrected at the earliest possible moment.

When the common cold or the acute eruptive fevers or the edema of allergic and nephrotic states involve the nose, there is always danger of stagnation of the nasal secretions occurring. Therefore, it becomes advisable to resort to the use of vasoconstrictors to avoid this state so that the ostia of the sinuses may thus remain open to insure good ventilation and drainage.

Isolation of infants and young children from those affected with infections in the upper respiratory tract is a timely health measure.

Locally removal of an infected or a hypertrophied pharyngeal tonsil is often necessary. The various obstructive impediments in the nose may require correction.

In conclusion, it is seen that sinus disease in children is common, the incidence being almost one out of three. It should be treated early with due consideration for the anatomical structure and the physiological function of those sinuses involved.

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IS CHEMICALLY PRESERVED PLASMA SAFE? A WARNING!

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For the treatment of shock and hemorrhage, plasma with and without a preservative is used. Most of the plasma in use at present is Army and Navy surplus plasma furnished by the American Red Cross. This blood plasma contains an antiseptic preservative which is merphenyl-mercuric borate, N.N.R. This antiseptic contains 59.09 per cent mercury. The proportion of this organic mercurial is one part to 50,000 plasma. This would correspond to 0.309 grains of merphenyl-mercuric borate in one unit of 500 cc. or 0.18 grains of mercury. Very few physicians and surgeons know that this plasma contains mercury. Where the patient is known to have an already existing nephritis, not over 2000 cc. should be given, and in the most serious cases without kidney damage 4000 cc. should not be exceeded. Patients with jaundice or recently jaundiced, or with a marked cirrhosis of the liver, plasma should not be used in excess of 2000 cc. This is particularly true of the N.N.R. preparations containing 1:10,000 organic mercurials with a mercury content of 49.15 to 59.09 per cent.

Hill and Bloodgood, (Hill and Bloodgood, Bull. Johns Hopkins Hosp., 35:2119;1924) reported that rabbits when given twelve doses of 5 mg. per kilogram, two injections per week, when sacrificed, showed at the necropsy slight congestion of the glomeruli, mild dilatation and slight swelling of the tubules, but no epithelial destruction. The lumina were partially occluded by edema of the epithelium in some there was an exudate.

St. George, (St. George, A.V., J.A.M.A., 20:247;1925) reported five fatal cases of sepsis following abortion, in all of which mercurochrome was used intravenously. Autopsy in each showed intense nephritic and intestinal lesions. Chemical analysis of these viscera showed mercury in even larger amounts than was found in mercuric chloride poisoning. He concluded that the margin of safety between a therapeutic and toxic dose must be variable and small indeed, and that in five cases reported the mercurochrome probably contributed to death. In necropsies on

cases which have received mercurochrome he has found twelve cases showing renal and colon involvement. A number of unexpected deaths where large amounts of plasma preserved with organic mercurials had been used, could have been explained upon a basis of mercurial poisoning.

The recent publicity to an alleged mercurial poisoning case led to the discovery that the patient had been given over six units of American Red Cross plasma containing merphenyl-mercuric borate. The amount of mercury found in the liver and kidney by chemical examination was similar to that found in a large number of examinations where bichloride of mercury had been taken without the characteristic microscopical picture, such as is seen in mercurial deaths.

In a recent case at the Cook County Hospital where death was due to another poison, two units of the same kind of plasma had been given and mercury was found in the liver and kidney. The bowel in both of these cases contained only a trace of mercury and did not show the characteristic ulcerations of the mercuric compounds.

Where death had occurred from intravenous injections of mercurochrome, the chemical and pathological examinations were similar to bichloride of mercury.

I feel that blood plasma preserved with merphenyl-mercuric borate, 1:50,000 is safe for non-nephritics in the amount usually administered.

MIND EASIER

The British Parliament was discussing the system of cheap form telegrams for the armed forces and Sir Ian Fraser suggested that the phrase "I am going to have a baby" be included in the list. "For the very same reason," said Captain Edward Charles Cobb, "will you also add the message 'I am not going to have a baby'?"

There is apparently no marked correlation of tuberculosis with geographical position. Areas of high prevalence occur in the tropics, the temperate, and arctic zones. The same is true of areas of low prevalence. Climate appears to play a minor role, if any, in the prevalence of tuberculosis, and it is apparent that this disease has an extremely widespread occurrence throughout the world. Sarah E. Yelton, Pub. Health Rep., Aug. 2, 1946.

NEW DRUG BRINGS DRAMATIC RECOVERY IN USUALLY FATAL DISEASE

The new antibiotic drug — streptomycin — which comes from a group of living organisms found in garden soils, river muds, peats and compost heaps has proved effective in the treatment of pylephlebitis, a usually fatal disease.

Two Minneapolis physicians, writing in the February 22 issue of *The Journal of the American Medical Association*, state that they used the drug in treating a case of pylephlebitis and the patient's recovery was dramatic. Pylephlebitis, which is an inflammation on the inside of the principal vein of the liver, is often a complication of a gangrenous appendix. Data on cases of the disease with multiple abscesses the liver show an exceedingly high mortality rate.

Drs. J. H. Wishart and L. J. Peterson, who are from the Veterans Administration Hospital, Minneapolis, and the Departments of Medicine and Surgery, University of Minnesota, report that in one series of 68,198 cases of appendicitis there were 247 cases complicated by multiple abscesses of the liver, an incidence of 0.36 per cent. Another investigator reported 1,463 cases of appendicitis with 12 cases of pylephlebitis.

Drs. Wishart and Peterson say that in 1938 two cases were treated with sulfanilamide with subsequent recovery; in another case sulfathiazole treatment resulted in cure and in 1945 a case was treated with penicillin and the patient recovered completely.

The two Minneapolis physicians used streptomycin in treating a 28 year old man who was admitted to the hospital with generalized cramping abdominal pain, recurrent chills and fever and headache. A diagnosis of acute appendicitis was made and the patient was operated on two hours later. The man's condition remained unchanged after the operation. His fever remained high and he suffered recurring chills. Penicillin treatment was started a day after the operation, but was discontinued after the fourth day because there was no great improvement in the patient's condition.

The postoperative clinical course and laboratory observations resulted in a diagnosis of pylethrombophlebitis. The patient was placed on

streptomycin therapy immediately. At the start, he was given the drug every six hours.

There was a gradual improvement in his condition, the doctors say, adding that "at no time while on streptomycin therapy did he receive any other medicament that in any way could confuse the results obtained by streptomycin therapy."

LEVEL OF INTELLIGENCE FLUCTUATES WITH SIZE OF FAMILY

The era of small families may be the era of higher intelligence, British investigators suggest.

Writing in the March 29 issue, the London correspondent of *The Journal of the American Medical Association* points to the theory of some British investigators that the first born in a family is likely to be the most intelligent, the level of intelligence falling as the family grows.

"That would mean," cites *The Journal* correspondent, "that in an era of large families the general intelligence would fall; but when, as now, families tended to be smaller, the result would be to raise the level of intelligence."

There is an old observation that large families seem to predominate among the less intelligent. *The Journal* article states that the "fact has recently been investigated and given numerical precision by the Eugenics Society, which has published a paper by Sir Cyril Burt on intelligence and fertility. The results of intelligence tests which measure the standard of mental ability show a negative correlation between the intelligence quotient of a child and the size of the family to which it belongs. Members of larger families have on the average lower test scores than those of smaller families."

Tuberculosis constitutes a humanitarian problem of great magnitude. The most recent comprehensive review, that of the United States Census Bureau in 1938, includes mortality figures for only thirty-two nations. The rates varied from 40 per 100,000 to 260. For the large part of the world's population, tuberculosis deaths are unrecognized, uncounted, or both. It is impossible therefore, to make more than the roughest estimate of the toll which the disease exacts. It is safe to say, however, that there occur each year in the world more than three million deaths from all forms of tuberculosis and that the total probably exceeds five million. James A. Doull, M.D., NTA Trans., 1946.

Council Meeting Minutes

April 20, 1947

The regular meeting of the Council was held at the Palmer House, Chicago, on Sunday morning, April 20, 1947, with the following present: Berghoff, Neece, Cook, Hopkins, Hedge, Harker, Sweeney, Blair, Peairs, Stevenson, Hulick, English, Lane, Otrich, Hamilton, Coleman, Camp, Hutton, Neal, Leary, Cross, O'Neil, Ann Fox and Frances Zimmer.

Secretary's Report

The secretary read his report stressing the volume of work relative to the 1947 annual meeting which is being completed in his office at this time. All available exhibit spaces have been sold. The annual audit of the society accounts is being conducted by Mr. Fred N. Setterdahl, and his report will be ready for publication.

At the present time \$4,679.00 has been sent in for the Benevolence Fund. Of this amount, \$1,400.00 was submitted by the Women's Auxiliary. Checks have been received from 247 physicians.

MOTION: (Harker-Hedge) that the report of the Secretary be received. Motion carried.

Report of President

Berghoff reported as president telling of meetings attended at Canton, East St. Louis, and on April 24, at Monmouth. Personal commendation should be given specifically to Miss Ann Fox and Mrs. Kathryn Simmons for their work on the Speakers' Handbook compiled for the use of the Scientific Service Committee. The Benevolence Fund has shown some progress, but this work should be pushed by all members of the Council to the fullest extent possible.

Report of President-elect

Neece reported as president-elect, stating that he had attended the postgraduate meeting at East St. Louis and felt that the day was definitely a successful one. The program offered at Mattoon on April 17th was excellent and the committee is to be congratulated on the caliber of the material presented. It might be an additional feature of interest to conduct question and answer programs from the speakers' table not necessarily on the definite paper

presented, but questions dealing with the specialty in which the men work.

The program for the Conference of Presidents and Other State Society Officers has been announced. The meeting at Atlantic City will hear Senator Taft, General Hawley and Marjorie Shearson.

Reports of Councilors

Hedge suggested that it might be advisable for the six Councilors from Cook County to get together and select a chairman and secretary for ideas that might come up relative to Chicago problems. This might be considered a "sub-Council" and might be of assistance during the meetings of the House of Delegates.

Blair: For your information the Woman's Auxiliary in Warren County has been recognized. Also it has been called to my attention in connection with my work as Chairman of the Committee on Constitution and By-Laws, that in some states the combination of two small county societies for scientific meetings is customary, but the individual counties retain their representation in the House OF Delegates. There are a few small, thinly populated counties in Illinois where no society is organized; there are several dual charters issued with only one delegate representing the two geographical areas. Perhaps this should be adjusted, but this information is simply presented for your consideration.

Otrich: I would like to call the attention of the Council to an article appearing in Medical Economics for this month. The article calls attention to the excellent relations existing between the Governor of this State and his private physician. The ease with which information can be imported which aids in guiding the political attitude along medical lines is stressed, and the importance of the personal contact to influence legislators is well illustrated. A reprint of this short article might well be indicated.

Hamilton: The postgraduate meeting held in Joliet on January 22nd was well attended, and the

committee should continue to present programs of this caliber.

Educational Committee, and Medical Service and Public Relations

Hutton reported as chairman of the Educational Committee. The Committee met Saturday afternoon and considered various problems. The attention of the Council should be called to the fact that some county medical societies, after requesting assistance from the Educational Committee, go ahead and arrange their own programs. This procedure can prove rather embarrassing to the physician who has accepted the invitation of the Scientific Service Committee to appear before the County Society, and it also makes future speaking engagements for the man in question, difficult to secure.

There was a meeting of the TB executive group with representatives of the A.F. of L. and the C.I.O. present. The group decided to request three bills: (1) to raise the peg levy, (2) to provide \$2.00 per day for sanitarium board, (3) to request \$15,000,000 for construction of hospital beds, half in Cook County and half downstate.

Hutton stated that the DeKalb County Medical Society has asked for an expression of opinion relative to the Sister Kenney Foundation, and a letter has been prepared to be used as a sample in framing replies. The thought to be expressed is that this is the use of one method of treatment for all cases, while the National Foundation makes use of all methods of treatment.

MOTION: (Hawkinson-Hedge) that the model letter be approved and kept on file. Motion carried.

Leary's Report

Mr. Leary reported as public relations counsel stating that he had written to all speakers at the annual meeting asking that they furnish him with copies of papers to be abstracted and used for publicity articles. It is possible that one of the local television stations will give time to the society during the meeting. Also a lot of time has been spent recently in preparation of the brochure for the Committee on Voluntary Prepayment Plans — this brochure to be submitted to the Council on Medical Service of the American Medical Association.

Neal's Report

John W. Neal reported as executive secretary of the Committee on Medical Service and Public Relations outlining the present session of the legislature now in session. Numerous bills pertaining to problems of health have already been introduced and others are expected. The anticipated antivivisection bill has not yet materialized, nor has any plan for socialized medicine at the state level.

Advisory Committee to the Veterans Administration

Hopkins reported as the chairman of the Advisory Committee to the Veterans Administration. The Chief Medical Officer reports that the following number of patients have been treated for service-connected disabilities by their own physicians:

January — 2,009

February — 2,471

March — 2,388

During the same months the following amounts have been paid to the physicians by the Veterans Administration:

January — \$35,914

February — \$26,410

March — \$38,581

Most of the complaints arise over the fact that only service-connected disabilities are to be treated under this program. Then too, there is still considerable confusion as a result of the failure on the part of the Medical Director to authorize elective surgery outside of Administration Facilities.

Also, the Administration now wants a fee schedule uniform throughout the 38 states where this program is in operation. Many of the fees are less than those under which we are now working.

The Committee recommends to the Council that the Council recommend to the House of Delegates that the consumation of this addition to the present contract be deferred at this time.

MOTION: (Hopkins-Hamilton) that the Council so recommend. Motion carried.

MOTION: (Hopkins-Neece) that the report as a whole be adopted. Motion carried.

Report of Committee on Prepaid Medical Care Plans

Hopkins reported as chairman of the Committee on Voluntary Prepaid Plans for Medical and Surgical Care. Representatives of the Committee have given roundtable presentations and presided at question and answer programs at two recent postgraduate meetings — one at Joliet and one at Mattoon. The Committee has presented to the Council on Medical Service of the American Medical Association, the typed up material which will be the brochure offering the summary of the Illinois Plan. The plan went into operation about February 1, 1947.

The Illinois Plan must be in operation for six months before approval can be given by the A.M.A. However, in their report to the A.M.A. House of Delegates, Illinois will have a page in the handbook this year.

It has been stressed that the medical profession should determine the coverage offered, but that the insurance companies through their actuary departments should determine the amount of premium to be charged.

MOTION: (Hopkins-Hamilton) that the report be adopted. Motion carried.

Advisory Committee to the Illinois Public Aid Commission

Coleman stated that the Advisory Committee to the Illinois Public Aid Commission had held a meeting Saturday evening. The Cook County Committee was not present since Mr. Hilliard was unable to attend. Surgical fees have been scheduled upward, as is the trend in various other fields. Intraocular surgery has been raised, and the radiologists are to offer additional advice and their sub-

committee will meet again to discuss these problems and proposed changes. The I.P.A.C. is willing to expend more money for medical fees as it becomes possible for them to do so.

Marjorie Shearon's Letters

Coleman reported that all members of the Council should be familiar with the weekly news letter as prepared and mailed out by Marjorie Shearon. Her comments are specific and give us information never before available. (The chairman of the Council asked that the secretary's office handle the mimeographing of this news letter and that it should be sent to the members of the Council and also to members of the Committee on Medical Service and Public Relations.)

Coleman stressed the importance of writing to the group of men listed so often in Marjorie Shearon's reports relative to legislative activity. She makes specific statements and lists the names of men actively involved. These men should be contacted and the letters should be kept rolling in.

MOTION: (Otrich-English) that the Committee on Medical Service and Public Relations care for such necessary correspondence and activity. Motion carried.

Constitution and By-Laws Committee

Blair reported as chairman of the Committee on Constitution and By-Laws, outlining the proposed changes which have been called to the attention of the Committee by various sources. The changes have to do with:

1. The time of the annual meeting being left to the discretion of the Council.
2. The term of the Councilors-at-large being cut from three years to one year.
3. The creation of a special emeritus rating to care for retired or incapacitated physicians not qualifying for regular Emeritus Membership under our existing Constitution. This group may be designated as "Past Service Members."

4. Membership in the society for physicians employed by the Veterans Administration in a full time capacity, members of the medical corps of the Army, Navy and U.S.P.H.S.

5. The creation of a Committee on Medical Testimony.

Since these changes or additions have been stressed by various members of the Society, and since the committee has been asked to submit material for consideration the material has been prepared for study and any action the Council deems fitting.

MOTION: (Harker-Hamilton) that the material be mimeographed and copies be sent to the Councilors. Motion carried.

State Department of Public Health

Cross reported as Director of the Department of Public Health stating that the Vital Statistics Act was up for modification, but the many ramifications and complicated setup may never be clarified so that these records may be kept in a simple and satisfactory manner.

In Illinois there is a Maternity Licensing Law under which all hospitals where obstetrics is done, must apply for licensure. All in the state except four have so applied and are so licensed. Those four, however, still accept maternity cases on a so-called "emergency basis" — which does not account for the 30 to 40 cases cared for in a year's time. These violations of the law must be reported to the Attorney General of the State and also to the State's Attorney in the County where the hospitals are located. The prosecution of the violation is not a prerogative of the Health Department, but in all probability, if the violations come to trial, Cross will be called as a witness. The law provides for a fine of from \$50.00 to \$500.00 and one year in jail, or both.

Illinois Psychiatric Society

Hawkinson presented some material sent to the Chairman of the Council by Joseph A. Luhan, president of the Illinois Psychiatric Society. They request approval on the part of the Council to the standards they have established. All standards are excellent, and approval should be granted.

MOTION: (Hawkinson-Lane) that the Council concur in the standards established and endorse the program. Motion carried.

Benevolence Fund

Hawkinson stated that the Medical Benevolence Fund was progressing, but that additional contributions were definitely indicated. A booth at the annual meeting will be assigned to the members of the Woman's Auxiliary and forms for contributions will be available for the men to fill out.

Emeritus Members

MOTION: (Hamilton-Hedge) that the following be elected to Emeritus Membership:

James L. Fleming, Chicago — C.M.S.
Gustave F. L. Wedel, Chicago — C.M.S.
W. R. Cubbins, Chicago — C.M.S.
F. E. Pierce, Chicago — C.M.S.
Charles M. Culver, Chicago — C.M.S.
Maggie Downs, Danville — Vermilion County
J. H. Williamson, Danville — Vermilion County
I. J. Scott, Danville — Vermilion County
Winifred A. Robb, Danville — Vermilion County
O. F. Wellenreiter, Danville — Vermilion County
R. S. McCaughey, Danville — Vermilion County
O. W. Michael, Muncie — Vermilion County
Robert Clements, Danville — Vermilion County
J. A. Ikemire, Palestine — Crawford County

Motion carried

MOTION: (Hopkins-English) that the bills as audited by the Finance Committee be approved. Motion carried.

MOTION: (Coleman-Neece) that the proposed programs to be put on at the expense of the American Cancer Society throughout Illinois be approved. Motion carried.

The Council adjourned at 2:15 p.m.

Respectfully submitted,

HAROLD M. CAMP, M.D., Secretary

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS COUNTY

Society News.—Dr. Arthur Steindler, professor and head of the department of orthopedic surgery, State University of Iowa College of Medicine, Iowa City, discussed "Infantile Paralysis" before the Adams County Medical Society, in Quincy, April 14. Mrs. F. P. Cowdin, Springfield, secretary, Illinois Statewide Public Health Committee, also addressed the meeting on "Health Educational Plans."

BUREAU COUNTY

Personal.—Dr. Samuel Pilchman, who has been practicing in Ladd for the past year, recently left for New York to carry on postgraduate work.

CHAMPAIGN COUNTY

Society News.—A symposium on anesthesia constituted the meeting of the Champaign County Medical Society in Champaign, April 10, with Drs. Glenn R. Ingram, Frederick A. Smith and Richard E. Allen participating.

COOK COUNTY

Personal.—Dr. George D. J. Griffin, senior surgeon and former vice president of the staff of Mercy Hospital, was elected president of the staff April 20. Dr. Griffin has been associated with the hospital for thirty-nine years. He graduated at Northwestern University Medical School in 1908 and is currently serving as associate clinical professor of surgery at Loyola University School of Medicine.—Rev. William J. Devlin, who recently graduated at Loyola University Medical School, became the first Jesuit priest in history to receive the degree of doctor of medicine after joining the religious order. He is now serving his internship at Cook County Hospital.

Meeting on Nutrition.—The Chicago Nutrition Association held a meeting at Thorne Hall, Northwestern University, April 11. Dr. John B. Youmans, dean, University of Illinois College of Medicine, spoke on "Nutrition Studies and Their Possible Application to Chicago" and Samuel A. Goldsmith, executive director, Jewish Charities, and chairman, advisory committee, Chicago-Cook County Health Survey, "The Chicago-Cook County

Health Survey—How It Was Made—What May Come of It."

Scholarships for Negro Physicians.—A group of physicians is sponsoring a series of from ten to fifteen scholarships to teach Negro physicians at Provident Hospital. The venture is a move to meet the need for specialists in Negro hospitals throughout the country. Dr. M. O. Bousfield, is technical director of the new sponsoring organization, Provident Medical Associates. Included among the physicians interested in this teaching program are Drs. E. V. L. Brown, Dallas B. Phemister, Franklin C. McLean, William Peterson, Andrew C. Ivy, Ralph B. Bettman, Eric Oldberg, Ludvig Hektoen, and Italo F. Volini. Consultants include Drs. John Prohaska, Milton Tinsley, Irving J. Shapiro, Sam Banks, Paul Greeley, William Adams, Eva Barton, R. G. Bloch, John Brewer, William H. Elghammer, Edwin F. Hirsch and Paul C. Hodges.

Mercy Hospital Host to Ex-Interns.—On May 2 Mercy Hospital held a reunion for 150 physicians of the 600 who have interned at the hospital since it was founded. The physicians were guests of the hospital at a dinner. On the welcoming committee were Sister Mary Veronica who works at the information desk and who has been with the hospital since 1891, and Dr. Walter S. Barnes who has been a member of the staff since 1892. The occasion was the first of its kind since Mercy graduated its first intern in 1853. Dr. George G. O'Brien, Woodstock, who interned at the hospital in 1900-1901, said the event would be made an annual affair. Dr. O'Brien was elected first president of the Mercy Hospital Interns' Association, which was formed at this meeting.

Bequests to Hospitals.—Presbyterian Hospital and Children's Memorial Hospital, together with the Visiting Nurse Association of Chicago, will share eventually in a four million dollar trust fund established in 1934 by the late Charles Barnett Goodspeed. The trust goes to the three institutions after the death of Mrs. Goodspeed, who is to have income from it for life.

Charles Galloway Addresses Washington Meeting.—Dr. Charles Edwin Galloway, associate professor of obstetrics and gynecology, Northwestern University Medical School, Chicago, was the guest speaker at the evening meeting of the Washington State Obstetrical Association in Seattle, April 12, on "Carcinoma of the Cervix." Dr. Galloway also participated in the afternoon session, discussing "Management of Hemorrhage in Late Pregnancy."

Society News.—Dr. Meyer A. Perlstein addressed the Montana Society for Crippled Children at Billings, Mont., April 19 and the Utah Society for Crippled Children in Ogden, April 21, on convulsions. He also gave an address before the students of the University of Utah Medical School. On May 14 Dr. Perlstein spoke before the Milwaukee County Society for Crippled Children on cerebral palsy and May 19-20 he conducted an institute on cerebral palsy for the Kalamazoo Institute, Kalamazoo, Mich.

Course in Allergy.—Specialist training in allergy, inaugurated at the University of Illinois as a one-year post-graduate course in January, 1946, will be offered to 10 more physicians during the next calendar year.

The 12-month course will be conducted by the University's allergy unit, a joint organization of the colleges of medicine and pharmacy at the Chicago professional colleges. The course will open on October 1, 1947, and continue through September 30, 1948.

Nineteen basic science subjects are listed in the curriculum. Three new subjects have been added including Mycology by Dr. Clifford Kalb, Histopathology by Dr. Isadore Pilot, and Statistics by Dr. Elmer Becker.

Ten doctors who have completed a year's internship and who graduated in the upper half of their class in medical school will be eligible for registration. The course will be conducted under the direction of Drs. William Welker, B. Z. Rappaport, and Adolph Rostenberg, Jr.

Chicago Doctors Participate in Medical Conference.—Drs. Warren H. Cole, Henry G. Poncher, Ford K. Hick, and George E. Wakerlin, all members of the staff of the University of Illinois College of Medicine, Chicago, participated in the fourth Rocky Mountain Medical Conference, Albuquerque, N. M., April 30-May 3. Dr. Cole spoke on "Treatment of Gallbladder Disease" and "Surgical Lesions of the Stomach"; Dr. Poncher, "Diagnosis and Treatment of Anemia in Infants and Children" and "Practical Aspects of Treatment of Infantile Eczema"; Dr. Hick, "Management of Respiratory Emergencies," and "Recognition and Management of Nonsurgical Jaundice" and Dr. Wakerlin, "Fluid-Electrolyte and Protein Balance," and "Clinical Application of Recent Advances in Gastrointestinal Physiology." The Bernalillo County Medical Society in New Mexico acted as host to the conference covering Colorado, Montana, New Mexico, Utah, and Wyoming.

Special Lectures of Institute of Medicine.—The third William Hamlin Wilder Memorial Lecture was delivered at the Palmer House, May 23, by Dr. John Q. Griffith, Jr., director, Laboratory for the Study of Hypertension, Hospital of the University of Pennsylvania, on "Rutin: A Therapy for the Hemorrhagic Complications of Hypertension." The sixth Edwin R. Kretschmer Memorial Lecture was delivered April 25 by Dr. Charles H. Watkins, associate professor of medicine, Mayo Foundation, University of Minnesota Graduate School of Medicine. His subject was "An Evaluation of Recent Drugs in the Control of Experimental and Human Leukemia." Both lectures are presented under the auspices of the Institute of Medicine of Chicago.

Benedict Aron Retires from National Guard.—The retirement from active service in the Illinois National Guard of Col. Benedict Aron and his automatic promotion to the rank of brigadier general was announced April 14. Dr. Aron, who has been a member of the National Guard since World War I, graduated at Chicago College of Medicine and Surgery in 1926.

Gift for Research.—The Dr. Jerome D. Solomon Research Foundation donated \$22,000 to its affiliate the Hektoen Institute of Cook County, April 5. Of this amount \$12,000 will be used for the continuation of a research project in hepatitis. The foundation, named in memory of Capt. Jerome D. Solomon of the army medical corps, who died in New Guinea in 1944, is a philanthropic group devoted to assisting the financing of general medical research at the Hektoen institute.

University Receives Gift.—Manuscripts of four books, 34 unpublished addresses, and miscellaneous writings by the late Dr. Arthur E. Hertzler, famed "horse and buggy doctor" of Halstead, Kan., have been presented to the University of Illinois.

Dr. Andrew C. Ivy, vice president of the University in charge of the Chicago professional colleges, announced in May that the manuscripts have been received from Dr. Irene Anita Koeneke, widow of Dr. Hertzler.

The manuscripts are mostly typewritten, with numerous alterations and corrections in Dr. Hertzler's handwriting. A few, particularly the addresses and a few chapters of some of his writings, are mimeographed copies. Some chapters he had used as lectures or circulated privately prior to publication.

The four published book manuscripts are "The Doctor and His Patients," 1940; "The Grounds of an Old Surgeon's Faith," 1944; "Ventures in Science of a Country Surgeon," 1944; and "Always the Child," 1946, the last book published by Dr. Hertzler. The original manuscript of "The Horse and Buggy Doctor," first published in 1938, will be presented to the University by Dr. Koeneke in the near future.

Dr. Hertzler's plan to publish the addresses under the title, "The Doctor Speaks His Mind," was

halted by his death on September 12, 1946, at the age of 76.

Miss Wilma Troxel, professional colleges librarian, said the manuscripts will be sorted and bound, and added to the 7,000-volume private medical library which Dr. Hertzler presented to the University in 1937.

Both the original gift by Dr. Hertzler and the presentation of the manuscripts by his widow were made largely because of their interest in the University of Illinois as well as the lifelong friendship of the Halstead, Kan., physician and Professor Tom Jones, head of the department of medical illustration. A Hertzler portrait by Mr. Jones hung in the noted physician's clinic.

In addition to gifts, Dr. Hertzler contributed \$54,000 to the University three years ago to establish a foundation in visual education in medicine.

The Zeit Lecture.—Dr. W. Barry Wood Jr., professor of medicine, Washington University School of Medicine, St. Louis, delivered the annual Fredrick Robert Zeit Memorial Lecture, May 15, in Thorne Hall, Northwestern University Medical School, on "Mechanisms of Recovery in Bacterial Pneumonia." The lecture is sponsored by the ZI chapter of Alpha Kappa Kappa Fraternity of Northwestern University Medical School. Richard E. Weeks is chairman of the F. Robert Zeit Lecture.

FAYETTE COUNTY

Personal.—Dr. Stanley W. Moore, recently released from services in the Army Medical Corps, plans to enter practice with his father, Dr. Carlyle H. Moore, Vandalia, who has completed fifty years in the practice of medicine.

HENRY COUNTY

Personal.—Dr. John H. Murphy, Geneseo, who graduated at Northwestern University Medical School, Chicago, in 1906, was recently awarded a life membership in the Iowa-Illinois Central District Medical Association at a meeting in Rock Island.

IROQUOIS COUNTY

Society Election.—Dr. Earl L. Roberts, Cissna Park, was elected president of the Iroquois County Medical Society at its meeting March 25, in Urbana, succeeding Dr. Alexander W. Fordyce, Gilman. Dr. John Birch, Onarga, was elected secretary-treasurer, succeeding Dr. Ryland Buckner, Gilman.

JEFFERSON COUNTY

Staff Pledges Funds to New Building.—The medical staff of Good Samaritan Hospital has reaffirmed the pledge of the Jefferson-Hamilton County Medical Society to contribute 10 per cent of all fees collected from hospital patients to the hospital building fund until of \$50,000 has been reached, newspapers recently reported.

LA SALLE COUNTY

Society News.—Dr. Edward L. Schrey, Chicago, discussed "Fractures About the Wrist" before the La Salle County Medical Society at the Kaskaskia Hotel, La Salle, April 10. A film on hematology

was also shown. Dr. F. J. Maciejewski is secretary of the La Salle County Medical Society.

MACON COUNTY

Society News.—Dr. Roland P. Mackay, associate professor of neurology and neurosurgery, University of Illinois College of Medicine, Chicago, discussed "Modern Treatment of the Convulsive Disorders" before the Macon County Medical Society in Decatur, April 24. Dr. Ford K. Hick, associate professor of medicine, University of Illinois College of Medicine, Chicago, discussed "Differential Diagnosis of Jaundice" before the society March 27.

MADISON COUNTY

Society News.—Dr. L. L. Collins, medical director and superintendent of the Madison County Tuberculosis Sanatorium, Edwardsville, discussed tuberculosis before the Madison County Medical Society, May 2. Dr. A. J. Kotkis, assistant professor of clinical medicine, St. Louis University School of Medicine St. Louis, addressed the society, April 24, on physical medicine.

Personal.—Dr. E. V. Ferguson, Edwardsville, has moved his office to Alton.

MCLEAN COUNTY

Society News.—Dr. Eric Oldberg, professor and head of the department of neurology and neurologic surgery, University of Illinois College of Medicine, discussed "Pituitary Tumors" before the McLean County Medical Society, May 7, in Bloomington.

PEORIA COUNTY

Society News.—"Recent Advances in the Treatment of Thyroid Disease" was discussed by Dr. Willard O. Thompson, clinical professor of medicine (Rush), University of Illinois College of Medicine, Chicago, before the Peoria Medical Society, April 22. Dr. Arthur Sprenger, Peoria, addressed the society, March 18, on "Renal Tuberculosis."

ROCK ISLAND

Society News.—The Rock Island County Medical Society was addressed in East Moline, April 8, by Dr. Alexander Brunschwig, Chicago, on "Impressions of Central European Medicine as Seen in Czechoslovakia."

SALINE COUNTY

Society Adopts Fee Schedule.—The Saline County Medical Society recently adopted new schedule of fees for home calls, newspapers reported. Night calls under the new schedule will be \$5 within the city limits of the doctor's residence and \$5 plus mileage for calls outside the city limits. Night calls are classified as those between 8 p.m. and 7 a.m. Day calls under the new schedule will be \$4.

UNION COUNTY

Personal.—Dr. Leonard Horecher, Chicago, has joined the staff of the Anna State Hospital.

VERMILION COUNTY

Personal.—Dr. J. M. Hickman was made a member of the "Fifty Year Club" of the Illinois State Medical Society at a meeting of the Vermilion County Medical Society recently. Dr. K. H. Ham-

mond, president of the county society, made the presentation of the pin and certificate.

WHITESIDE COUNTY

Society News.—Dr. John F. Pick, Chicago, addressed the Lee and Whiteside county medical societies at a meeting in Rock Falls, April 10, on "Methods of Plastic Repair."

GENERAL

"The Aged Sick."—One session of the meeting of the Tri-State Hospital Assembly at the Palmer House, May 5, was devoted to the "aged sick." Raymond M. Hillard, Chicago, public aid director of the Illinois Public Aid Commission, presided. Speakers included Dr. Andrew C. Ivy, Chicago, on "Diseases of the Aged Sick"; Dora Goldstine, Chicago, assistant professor of medical social work, University of Chicago, "Medical Social Case Work in Planning for the Aged Sick," and Edna Nicholson, Chicago, executive secretary, Central Service for the Chronically Ill., Institute of Medicine Chicago, "Arrangements for Care of the Aged Sick."

Donald Anderson Joins AMA.—Dr. Donald G. Anderson, dean, Boston University School of Medicine, has been appointed Secretary of the Council on Medical Education and Hospitals, American Medical Association, to succeed Dr. Victor Johnson, who recently resigned to join the Mayo Foundation. Dr. Anderson's appointment at the AMA is effective July 1. He graduated at Columbia University College of Physicians and Surgeons, New York. During the war he was associated with Dr. Chester Keefer in penicillin research for the Office of Scientific Research and Development.

Medical Department Receives Surgeons' Approval.—The medical department of the McCook Sheet Mill of Reynolds Metals Company has been certified by the American College of Surgeons. Dr. S. M. Chasten is medical director.

Public Health Election.—Dr. Edward A. Piszczek, Chicago, director of the Cook County Department of Health, was elected president of the Illinois Public Health Association at its meeting in Springfield April 19. Dr. E. V. Thiehoff, Peoria, is a member of the executive council.

Business Men Contribute to Heart Drive.—About eighty-five Chicago business and civic leaders met April 26 in the Union League Club to contribute funds to finance research in the field of heart disease. The luncheon was sponsored by the Chicago Heart Association whose fund raising goal is \$100,000. Dr. Morris Fishbein, Editor of The Journal of the American Medical Association, spoke on heart disease and its relationship as an occupational disease to business and civic leaders. Dr. J. Roscoe Miller, dean, Northwestern University Medical School, demonstrated a machine that records heart action. Dr. George K. Fenn, president to the Chicago Heart Association, presided.

Committee on Research for Treatment of Alcoholics.—At a special meeting of the Illinois Department of Public Welfare in Chicago, April 2, Dr. George A. Wiltrakis, deputy director of the Medical and Surgical Service of the department appointed a committee to study the problem of the alcoholic in the state institutions as well as to initiate various studies in research. The new committee consists of Dr. Harry Hoffman, state alienist, chairman; Dr. Andrew C. Ivy, dean of the Chicago Professional Colleges, University of Illinois College of Medicine, Chicago; Dr. Paul Hletko, chief medical officer of the department of public welfare; Dr. Erich Liebert, clinical director of the Elgin State Hospital; Dr. Charles Katz, clinical director of the Kankakee State Hospital; Mrs. M. Platner, chief sociologist, department of public welfare; Dr. Phyllis Wittman, chief psychologist of the Illinois State institutions; Dr. Ben Lichtenstein, chief of laboratories at the Illinois Neuropsychiatric Institute, and Dr. M. Horwitt, research biochemist at the Elgin State Hospital.

The committee was formed following a discussion of the care and treatment of the alcoholic. Among the speakers were Dr. Anton J. Carlson, professor emeritus of physiology, University of Chicago, who discussed various phases of research and the urgent need for an active program in an attempt to analyze and aid the alcoholics who number 750,000 in the United States. In his discussion, Dr. Ivy hoped it might be possible to discover a drug which would create a dislike for alcohol.

As of June 30, 1946, the population of 32,262 was recorded in the state institutions at Alton, Anna, Chicago, East Moline, Elgin, Jacksonville, Kankakee, Manteno and Peoria. The total number of alcoholics for this group was 1,702 or a percentage of 5.27.

Symposium on Cancer.—The Illinois Division of the American Cancer Society held its second cancer symposium for downstate physicians in Chicago March 17-21. Sessions were held at Northwestern University Medical School, University of Illinois College of Medicine, University of Chicago School of Medicine, Mercy Hospital (in co-operation with Loyola University Medical School), and Michael Reese Hospital.

The following physicians attended as guests of the Illinois Division:

M. O. Alexander, Rockford
A. Allyn, Springfield
Adolph J. Bartoli, LaSalle
Robert R. Bates, Joliet
Carl P. Birk, Decatur
E. G. Boeke, Winslow
Frank Brenner, Quincy
John E. Choisser, Eldorado
C. A. Conklin, Bloomington
Wm. Copeland, Cary
H. B. Dillman, Flora
C. H. Drenckhahn, Urbana

Hans A. Klein, Bradley
Paul E. Landmann, Joliet
Everett M. Laury, Danville
R. J. McGann, Springfield
Glen R. Marshall, Effingham
John Ovitz, Sycamore
Harvey C. Pauley,
Proving Grounds
W. E. Rideout, Freeport
Harold Schroeder, Pontiac
Joseph E. Sexton,
Champaign

H. A. Elkins, Mt. Carmel
D. B. Frankel, Fairfield
Charles Green, Spring Valley
James F. Harris, Richmond
G. R. Hill, Fairfield
B. F. Hoopes, Bloomington
L. L. Hutchens, Flora

S. A. Sinow, Clinton
H. P. Sloan, Bloomington
R. A. Spencer, Beardstown
W. T. Stickley, White Hall
A. Wm. Wellstein, Geneseo
Maybelle Williams, Alton

During the five-day period discussions of cancer in every location of the body were presented by topranking specialists in the various fields.

Professional education is an important part of the program of the American Cancer Society. The Illinois Division plans to hold additional symposiums from time to time.

Charles Branch Joins College of Surgeons.—Dr. Charles F. Branch, formerly dean of Boston University School of Medicine and recently director of the Children's Hospital and the Children's Medical Center, Boston, has joined the staff of the American College of Surgeons in Chicago as assistant director. Dr. Branch will be particularly concerned with the work of the Cancer Committee of the College, which includes among its activities the survey and approval of cancer clinics as inaugurated in 1930 and the establishment of a similar program in relation to cancer detection centers. Dr. Branch received his M.D. degree from the University of Vermont and his basic training in pathology at the Mallory Institute of the Boston City Hospital and at the Jefferson and Philadelphia General Hospitals in Philadelphia. From 1926 to 1946 he was professor of pathology at Boston University School of Medicine.

Special Inauguration Ceremony.—Six prominent professional leaders addressed simultaneous symposiums in dentistry, medicine, and pharmacy at the University of Illinois professional colleges on May 15 in the formal opening of the two-day inauguration ceremony of President George D. Stoddard.

The speakers, announced by Dr. Andrew C. Ivy, vice president in charge of the Chicago Professional Colleges, were:

Dr. R. R. Spencer, director of the National Cancer Research Institute, Bethesda, Md.

Dr. E. V. Cowdry, professor of anatomy at Washington university school of medicine, St. Louis, Mo.

Dr. Austin M. Brues, associate professor of medicine of the University of Chicago Institute of Radiology and Biophysics.

Dr. Harlan H. Horner, secretary of the council on dental education of the American Dental Association, Chicago.

Dr. C. J. Van Slyke, chief of the research grants division of the National Institute of Health, Bethesda, Md.

Dr. George D. Beal, assistant director of the Mellon Institute for Industrial Research, Pittsburgh, Pa.

The symposiums at the professional colleges, a convocation at Navy Pier, and a luncheon and banquet at the Drake hotel highlighted the May 15 program at Chicago. The second portion of the

ceremonies, including the inauguration and processional, were staged at Champaign-Urbana and at the Robert Allerton park at Monticello on May 16. Dr. Stoddard was inaugurated as the tenth president of the University of Illinois.

The symposiums on Thursday, May 15, started at 9:30 a.m., and continued through noon. Five hundred invitations were sent out for the symposiums to deans of professional colleges throughout the nation and key leaders in the fields of dentistry, medicine, and pharmacy.

Dean John B. Youmans presided at the college of medicine symposium. Dr. Carlos I. Reed, professor of physiology, served as chairman of the program committee.

Dr. Spencer chose "The Meaning of Cancer Research" as the topic of his presentation, one of three in the college of medicine symposium. Dr. Cowdry spoke on "The Broad Implications of Ageing" and Dr. Brues on "Medical Implications of Atomic Research." Five members of the college of medicine faculty, Drs. W. H. Cole, W. G. Hibbs, Otto Kampmeier, Eric Oldberg, and M. H. Streicher, were members of the program committee.

"Dentistry of Tomorrow" was selected as the theme of the symposium sponsored by the college of dentistry. Dr. Allan G. Brodie, acting dean of the college, presided at the session with Dr. Isaac Schour, associate dean in charge of post-graduate studies, in charge of the program. Dr. Van Slyke spoke on "New Horizons in Dental Research," and Dr. Horner on "New Horizons in Dental Education."

Dr. E. R. Serles, dean of the college of pharmacy, presided at the third symposium. Dr. E. H. Wirth, professor of pharmacognosy and pharmacology, served as chairman of the program committee, assisted by Professor Byril E. Benton and Dr. Ernst R. Kirch.

Dr. Beal spoke on "Pharmaceutical Education and Industrial Research." Prior to his address, guests toured the departments of the college of pharmacy.

At the close of the symposiums, guests attended a luncheon at the Drake hotel, at 12:30 p.m. Dr. A. J. Carlson, professor of physiology at the University of Chicago, will deliver the principal address on "Science, Education in the Future of Man." Dr. Karl A. Meyer, a member of the University board of trustees, presided at the luncheon.

The campaign against tuberculosis should be regarded, not as an isolated or special endeavour, but as an important part of the general public health program. Though the control of other infectious diseases, better housing facilities and general living conditions will have their influence in lowering the incidence of tuberculosis, the chief factor will remain the deliberate prevention of tuberculous infection. G. C. Brink, M.D., Can. Jour. Pub. Health, Jan., 1946.

"For The Common Good"

The tenth and final postgraduate conference of the Illinois State Medical Society, held in the Elks Club, Monmouth, April 24, was the most successful from the standpoint of attendance. One hundred and seventy-five persons attended the dinner session in the evening. Dr. Charles P. Blair, Monmouth, as counselor of the Fourth District, presided. Guest councilors included Drs. Everett P. Coleman, Councilor-at-large, Canton, and Dr. Harlan English, Danville, councilor for the Eighth District who drove 225 miles to attend the session. A feature of the evening session was the presentation of the Fifty Year Emblem to Dr. Henry S. Zimmerman, Cameron, who graduated at Northwestern University Medical School, in 1896. The community of Cameron, taking advantage of the occasion, presented Dr. Zimmerman and his wife with a huge basket of flowers as a token of their esteem.

Speaking of travel, Dr. Charles E. Galloway left San Francisco at 6 p.m. April 16 to take part in the Postgraduate Conference scheduled for Mattoon, April 17. Three thousand miles is a lot of territory to cover to keep a speaking appointment, but this busy physician had pledged his word to his state medical society. Dr. Galloway, after his own presentation, was not too tired to show the slides for his classmate, Dr. Harry A. Oberhelman.

At the same conference, Dr. Glenn C. Wolf, Mattoon, offered his services as a speaker to the Educational and Scientific Service Committees.

Lectures Arranged Under the Auspices of the Scientific Service Committee:

Dr. Harry Mock Jr., April 10, Refrigeration in Surgery, and Dr. John Huffman, April 24, Dyspareunia, both before the Will-Grundy County Medical Society.

Dr. Meyer Brown, Chicago, April 17, Recognition and Treatment of Mild Depressive States, Livingston County Medical Society in Pontiac.

Dr. G. Cleveland Otrich, Belleville, Councilor for the Tenth District, April 24. Responsibilities and Benefits of Organized Medicine, Randolph County Medical Society.

Dr. Harry A. Oberhelman, Chicago, May 8, Relationship of Chronic Cystic Mastitis to Cancer of the Breast, Morgan County Medical Society in Jacksonville.

Dr. J. S. Grove, Chicago, May 8, Gastrointestinal Manifestations of Urologic Disease, LaSalle County Medical Society.

Dr. Harry H. Boyle, May 8, Nephritis and Nephrosis in Children, Henry County Medical Society in Kewanee.

Dr. Philip Thorek, Chicago, May 21, Modern Methods of Biliary Surgery, DuPage County Medical Society in Elmhurst.

Dr. Norris J. Heckel, Chicago, May 27, Common Urologic Problems in General Practice, Macoupin County Medical Society in Carlinville.

Dr. Danely P. Slaughter, Chicago, May 6, Diagnosis of Accessible Cancer, Vermilion County Medical Society in Danville.

Lectures Arranged Under the Auspices of the Educational Committee:

Mr. John Neal, May 9, Socialized Medicine—What It Would Mean to the Optical Industry, Optical Wholesalers National Association in Chicago.

Dr. John Huffman, Chicago, May 21 Cancer—and You, High School Assembly in Jacksonville.

Dr. Roswell T. Pettit, May 26, What We Are Doing About Cancer, Monmouth P. E. O.

Dr. Harry H. Hedge, May 28, Care of the Skin and Skin Diseases Commonly Seen, Belleville Medical Auxiliary in Belleville.

The Educational Committee of the Illinois State Medical Society and Dr. Josiah J. Moore, Chicago, assisted the Woman's Auxiliary to the Medical Society of Milwaukee County in arranging their program, May 15-16, as a part of the four day "Hall of Health." The sessions were held in the Municipal Auditorium. The participating physicians were:

Dr. Philip Lewin, Chicago, Walking Through Life.

Dr. William F. King, director, division of adult hygiene and geriatrics, Indiana State Board of Health, Indianapolis. The Wonderful One Horse Shay.

Dr. Robert S. Berghoff, Chicago, Immediate Past President, Illinois State Medical Society, Why We Are Growing Older.

Dr. Robert R. Mustell, Chicago, Hitting the High Spots in Health.

Dr. Frank McClanahan, college physician, Monmouth College, Monmouth, America—At the Cross Roads.

Dr. W. W. Bauer, Director, Bureau of Health Education, American Medical Association, Chicago, The Health Challenge in Our Schools.

A special committee of the Chicago Medical Society and the Chicago Board of Education cooperate each year in the observance of Chicago Youth Week. This year, through the Educational Committee of the Illinois State Medical Society, the following physicians agreed to participate in present talks at the schools designated:

Dr. W. W. Bolton, April 18, Brainard School, Tempers and Tantrums.

Dr. Edward A. Pisczczek, April 21, Lane Technical School, The Responsibility of Youth in National Health.

Dr. Bolton, Goodrich School, May 9, Health Hints.

Dr. John B. Karr, May 13, Hale School, Health, Youth and Greatness.

Dr. Maurice Zee, May 14, Hayt School, Health Hints.

Dr. Margaret Scannell, May 14, Taylor School, Keeping Your Body Fit.

Dr. L. M. Hart, May 14, Blaine School, Keeping Your Body Fit.

Arthur H. Rosenblum, May 14, Earle School, Keeping Your Body Fit.

Jules Richmond, May 14, Skinner School, Health Hints.

W. K. Gottstein, May 14, Oglesby School, Health and Personality.

H. H. Boyle, May 14, Hedges School, Tempers and Tantrums.

Ernest Schmidhofer, May 15, Coonley School, Tempers and Tantrums.

Richard Weissbrenner, May 15, Carpenter School, Health and Personality.

Dr. Piszczek, May 16, Howland School, Keeping Your Body Fit.

Morris Braude, May 16, Otis School, Tempers and Tantrums.

Dr. H. Kenneth Scatliff is chairman of the committee representing the Chicago Medical Society and Mr. A. H. Pritzlaff of the Chicago Board of Education is executive secretary of Chicago Youth Week.

Youth Health Day was observed on May 12. The following proclamation was issued by Governor Green:

"Whereas, the youth of Illinois are the trustees of the future of our State, and

Whereas, fulfillment of their high potentialities for achievement and successful living depends in large measure on their physical and mental health and

Whereas, the Illinois State Medical Society and the Illinois Congress of Parents and Teachers are making statewide plans and actively to protect and promote school children

Now, therefore, I, Dwight H. Green, Governor of the State of Illinois, do hereby proclaim Monday, May 12 of the present year as Youth Health Day throughout Illinois and request an appropriate observance of the occasion.

In witness whereof I have hereby set my hand and caused the great seal of the State of Illinois to be affixed."

MARRIAGES

WILLIAM J. BORGS MILLER, Murphysboro, to Miss June Christine Knox of Wetmore, Mich., in Chicago Dec. 21, 1946.

ROBERT J. MUENCH, Des Plaines, to Miss Florence L. Alexander in Melrose Park, Nov. 3, 1946.

DEATHS

WILLIAM ASA BAKER, Anna, who graduated at Loyola University School of Medicine in 1918, died January 18, aged 57, of cerebral hemorrhage. He was on the staff of Anna State Hospital, physician for the Community High School Athletic Association and associated with the Chicago and Northwestern Railroad.

ROGER M. BISSEKUMER, Rockford, who graduated at Loyola University School of Medicine in 1918, died March 3, aged 53, at Wilgus-Elmlawn Sanitarium, Rockford. He had served in World War I, was a member of the executive staff of St. Anthony's Hospital, Rockford, since 1920 and was also an associate staff member at Swedish-American and Rockford Memorial Hospitals.

CLAUDE M. COOK, Danville, who graduated at National Medical College, Chicago, in 1909, died February 17, aged 62 from chronic heart disease. Dr. Cook was city health director since 1935 and chairman of the Vermilion County Chapter of the National Foundation for Infantile Paralysis.

JAMES WASHINGTON DUNN, Cairo, who graduated at Vanderbilt University School of Medicine, Nashville, Tenn., 1892, died January 10, aged 84, of cerebral hemorrhage. He was past president of the Alexander County Medical Society, expert examiner to the Pension Bureau and member of the medical advisory board during World War II, on the staff of St. Mary Infirmary where he died.

JAMES MORGAN GROVE, Chicago, who graduated from Harvey Medical College, Chicago, in 1903, died March 28, aged 76, in the Cherokee State Hospital, Cherokee, Iowa. He became a staff member of the hospital a year ago when he retired from active practice in Chicago. He was on the staff of the Illinois Post Graduate Medical School and the Chicago Union Hospital.

EMORY SYLVESTER HALL, McLeansboro, who graduated from Northwestern University Medical School in 1908, died April 4, aged 73 of coronary thrombosis. He had served in the medical corps in World War I and for the last 12 years was the owner of the McLeansboro Hospital.

ERIC A. HARTLEY, Chicago, who came here from Berlin in 1944, died April 10, aged 59, in the American Hospital.

WILLIAM A. HILLEMAYER, Chicago, who graduated from Jefferson Medical College of Philadelphia, Pennsylvania, in 1896, died April 6, aged 72, in his home. He was a member of the staff of Woodlawn Hospital and had practiced medicine in the Woodlawn district for 50 years. From 1900 to 1905, Doctor Hillemeyer was an associate professor of anatomy at Northwestern University.

DANIEL E. MURPHY, Chicago, who graduated from Northwestern University Medical School in 1901, died March 21, aged 78. He was a member of the staff of Alexian Brothers' Hospital where he died.

WILLIAM J. MAURITS, Morrison, who graduated from Wayne University College of Medicine, Detroit, in 1900, died following an operation on March 24, aged 71. Doctor Maurits had practiced medicine in Morrison for 40 years.

ALEXANDER C. PESKA, Chicago, who graduated from Loyola University School of Medicine in 1922, died April 9, aged 57, of a heart attack. He was a member of the staff of the Lutheran Deaconess Hospital, Chicago.

RICHARD F. SCHIELE, Glen Ellyn, who graduated from the University of Illinois College of Medicine in 1915, died April 9, aged 55, in his home. He had practiced medicine in Glen Ellyn more than 30 years.

CHARLES HENRY STARKEL, Belleville, who graduated from Rush Medical College in 1884, died February 22, aged 84, of cerebral hemorrhage. He was formerly health commissioner of Belleville and at various times

had served the St. Clair County Medical Society as treasurer, secretary and vice-president.

HENRY G. STOLL, Danville, who graduated from Loyola University School of Medicine in 1918, died January 18, aged 58, of coronary disease. He served during World War I and was on the courtesy staff of the Lake View Hospital.

GEORGE H. WEAVER, Wilmette, retired, who graduated from Rush Medical College in 1889 and later served as professor of pathology there, died April 19, aged 80, in Evanston Hospital. He was assistant pathologist of the Memorial Institute for Infectious Diseases and for several years was attending physician for children's and contagious diseases at County Hospital.

NELSON A. WRIGHT, SR., Manito, who graduated from Missouri Medical College, St. Louis, in 1899, died March 25, aged 72, in a Peoria Hospital. He had been in ill health for some time.



DR. VAN ANTWERP BECOMES SEARLE MEDICAL EDITOR

Lee Douglas van Antwerp, M.D., who joined G. D. Searle & Co., Chicago pharmaceutical manufacturers, on March 31 to occupy the newly created post of Medical Editor, has had many years of experience in the writing and editing of medical journals. Since 1936, he has served as editor of *The Centaur*, official publication of the Alpha Kappa Kappa Medical Fraternity; he has been a member of the Editorial Board of the *Connecticut State Medical Journal*, and has acted at different times as Associate Editor of *Clinical Medicine*.

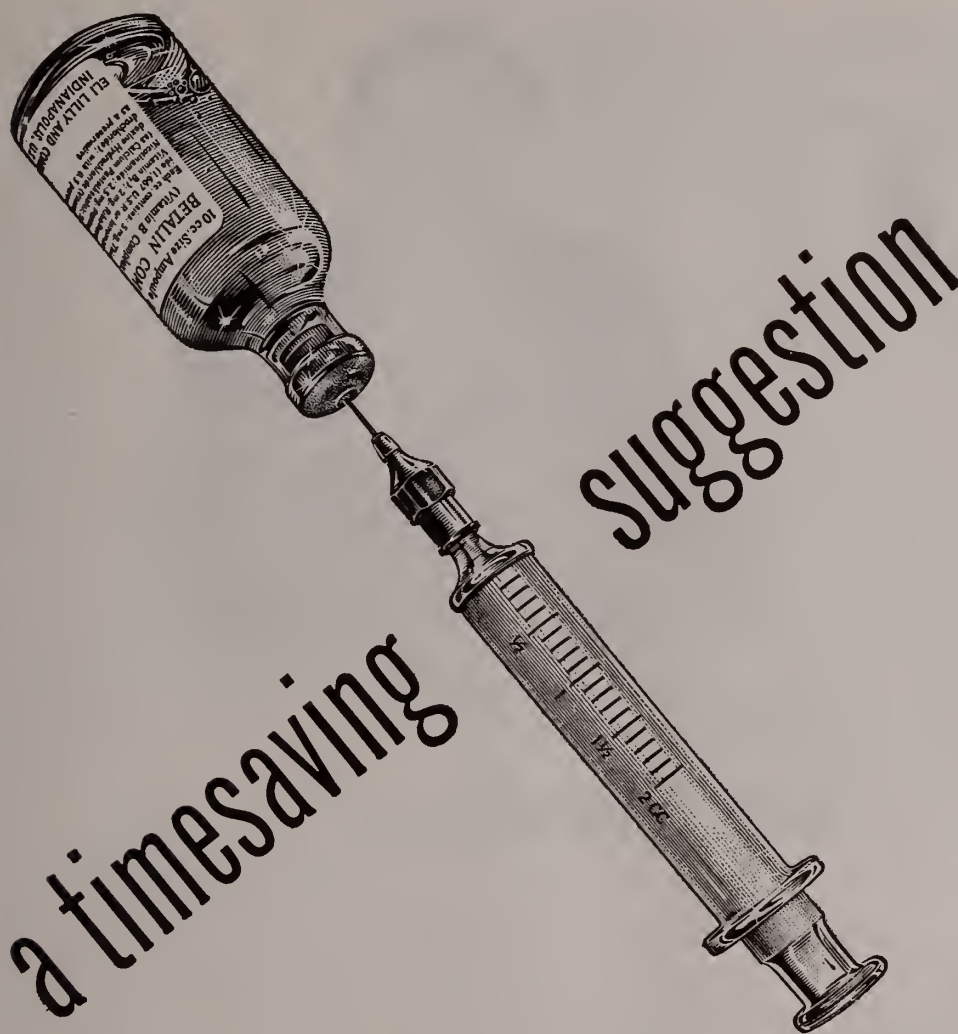
Dr. van Antwerp received his M.D. degree from the University of Michigan Medical School in 1931. Licensed to practice medicine in both Michigan and Connecticut, Dr. van Antwerp received his first training as an interne in the Miami Valley Hospital in Dayton, Ohio. From 1932 until 1947, barring his service in the Army Medical Corps, he has been connected with the Meriden State Tuberculosis Sanatorium in Meriden, Connecticut, and consultant in chest diseases at the Meriden Hospital.

His Army service covers both World War I

and World War II. He was a private in 1918 and went into the Army Medical Corps in the recent war as a captain, later being promoted to Lieutenant Colonel, with duties in the headquarters of the Borden General Hospital at Chickasha, Okla.

Dr. van Antwerp is a fellow of the American College of Physicians and a member of the American Medical Association, Connecticut State Medical Society, New Haven County Medical Society, Meriden City Medical Society and American Association of the History of Medicine.

The single flaw in the remarkable progress in the control of tuberculosis in the United States is the fact that the disease is still a major cause of death, killing more Americans than all other infectious and parasitic diseases combined. In spite of a constant search for drugs to effect a lasting cure, no substance has been found that is completely satisfactory. Various sulfonamides, although capable of modifying the disease in experimental animals, have proved too toxic for continuous use in human patients, and streptomycin, which provides considerable protection, has not effected permanent cure. Since no specific remedy has been discovered, the accepted methods of treatment, which have obtained excellent results in a great many cases, must be relied on. *Editorial, N. E. Jour. Med.*, Dec. 5, 1946.



STERILIZE the stopper, insert a sterile hypodermic needle, and withdraw the required dose. It is that simple to prepare an injection of B complex vitamins from Ampoules 'Betalin Complex' (Vitamin B Complex, Lilly). This prepared solution contains the five most essential vitamins of the B complex in convenient, ready-to-use, 10-cc. rubber-stoppered ampoules.

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agement of chronic gall-bladder cases, with or without stones, provided there is no actual obstruction. It is indicated also in liver poisoning, in cirrhosis, and in chronic passive congestion. It is contraindicated when the common bile duct is obstructed.

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Isoleucine	1068 mg.	Methionine	293 mg.	Valine	973 mg.
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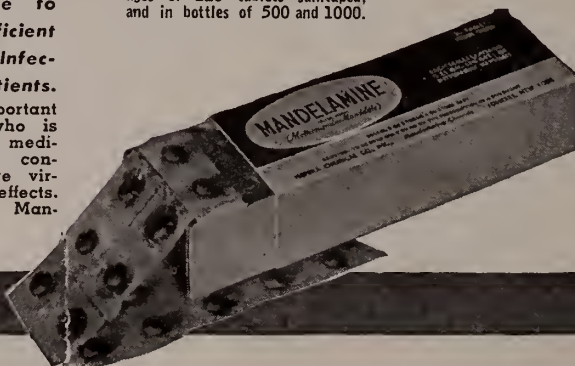
Safety, ease of administration, and characteristically prompt action combine to make Mandelamine an especially efficient agent in the treatment of urinary infections in children and in elderly patients.

Freedom from drug toxicity is an important consideration to the busy physicians who are unable to maintain patients under close medical supervision. Mandelamine may be confidently prescribed in therapeutic dosage virtually without consideration of toxic effects. Uncomplicated oral administration of Man-

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Early control of common urinary infections is the characteristic response to Mandelamine therapy. Disturbing urinary symptoms are usually alleviated rapidly and, in the absence of obstruction, the urine is promptly cleared of organisms in a high percentage of cases.

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Protean Syndrome

RAPID clinical response in the syndrome of hypochromic (secondary) anemia usually requires more inclusive therapy than iron medication alone. The characteristic lethargy, anorexia, listlessness, and disturbed gastrointestinal function reflect the many metabolic derangements involved. Hence effective therapy must also be directed against these associated symptoms before complete return of well-being can be produced.

The well-balanced, rational formula of Livitamin With Iron is designed to combat the many manifestations of the protean syndrome characteristic of hypochromic anemia. It provides not only highly available iron in nonionic form, but also generous quantities of B complex vitamins as well as fresh liver (as liver concentrate) containing the fraction in which the recognized antianemia principle is found. Thus existing vitamin deficiencies, so often the cause of anorexia and nutritional involvements, are promptly overcome, further adding to the patient's subjective improvement as the anemia itself is corrected.

Livitamin With Iron proves highly efficacious in all types of secondary anemia, whether due to impaired iron intake, chronic blood loss, or chronic systemic infection. It is especially valuable in the anemia of children which is so often associated with malnutrition and vitamin deficiencies. Dosage: 3 to 4 teaspoonfuls three times daily.



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Iron and Manganese Peptonized	30 gr.
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(Equivalent to 140 mg. elementary Iron)	
Thiamine Hydrochloride (B ₁)	10 mg.
Riboflavin (B ₂ , G)	5 mg.
Nicotinamide (Niacinamide)	25 mg.
Pyridoxine Hydrochloride (B ₆)	1 mg.
Pantothenic Acid	5 mg.
Liver Concentrate 1:20	45 gr.
(Represents 2 oz. fresh liver)	
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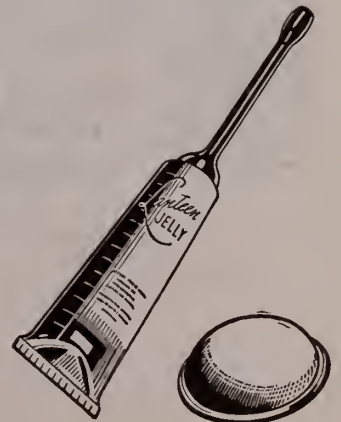
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Extensive use of the Surgical Solution of Mercurochrome has demonstrated its value in preoperative skin disinfection. Among the many advantages of this solution are:

Solvents which permit the antiseptic to reach bacteria protected by fatty secretions or epithelial debris.

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Physical Medicine Abstracts

John S. Coulter, M.D.

HEAVY RESISTANCE EXERCISES

Capt. Thomas L. DeLorme (MC) A.U.S.

27:10:607

October, 1946

In ARCHIVES OF PHYSICAL MEDICINE.

Exercise therapy is essential in restoring maximum function following many types of diseases and injuries. For therapeutic purposes exercises may be classified according to the quality developed in the exercised muscle — namely power, endurance, speed and coordination.

When the local injury has healed, redevelopment of muscle power is the most important factor in restoring normal function to the extremity. The method here presented for developing muscle power by exercise is founded on the principle of heavy resistance and low repetition exercises, whereas the generally accepted principle is low resistance and high repetition exercises — such as stationary bicycle riding, lifting light sandbags or other weights through ropes and pulleys and stair climbing — which develop endurance rather than power. The fatigue that results from the latter is due not so much to overcoming resistance as to the sheer number of repetitions; therefore, such exercise does not develop power. If low resistance is used for a low number of repetitions, no significant increase in either power or endurance results and the only value lies in the increase of joint motion.

The quadriceps exercise described is particularly valuable, for it develops maximum power without weight bearing. Since it is a non-weight bearing exercise, it is especially useful in redeveloping the musculature following men-

(Continued on page 52)

How irritation varies from *different* cigarettes

Tests made on rabbits' eyes reveal the influence of hygroscopic agents*

		TYPE OF CIGARETTE
1	Edema 0.8	Cigarettes made by the PHILIP MORRIS method
2	Edema 2.1	Cigarettes made with no hygroscopic agent
3	Edema 2.7	Popular cigarette #1 (ordinary method)
4	Edema 2.6	Popular cigarette #2 (ordinary method)
5	Edema 2.7	Popular cigarette #3 (ordinary method)
6	Edema 2.7	Popular cigarette #4 (ordinary method)

CONCLUSION:* Results show that regardless of blend of tobacco, flavoring materials, or method of manufacture, the irritation produced by all ordinary cigarettes is substantially the same, and measurably greater than that caused by PHILIP MORRIS.

CLINICAL CONFIRMATION:** When *smokers* changed to PHILIP MORRIS, substantially every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.

*N. Y. State Journ. Med. 35 No. 11,590 **Laryngoscope 1935, XLV, No. 2, 149-154

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

ITS DELICIOUS TASTE

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Successful dietary restriction is possible only when the prescribed diet provides sufficient gustatory appeal to avoid monotony and drabness. Experience has shown that most patients find it difficult to subsist on foods which are "colorless" and largely tasteless.

Malt-o-Meal, an enriched farinaceous wheat cereal flavored with toasted malt, adds attractiveness and taste appeal to any bland diet. Its unique and delicious taste is enjoyed by all patients, hence this cereal can be eaten daily or more often if necessary. Malt-o-Meal is bland and residue-free (fiber content 0.4%). It is applicable whenever a bland, easily digested cereal food is required, as in peptic ulcer, colitis, dysentery, esophageal stenosis, dysphagia. In addition to the basic nutrients provided by wheat, Malt-o-Meal supplies significant amounts of thiamine, riboflavin, niacin, and iron.

CAMPBELL CEREAL COMPANY, Minneapolis, Minn.

Malt-o-Meal



Malt-o-Meal, an enriched wheat cereal flavored with toasted malt, provides per ounce (dry weight), 0.29 mg. of thiamine, 0.13 mg. of riboflavin, 1.09 mg. of niacin, and 2.00 mg. of iron. Thus Malt-o-Meal provides appreciably more thiamine, riboflavin, and iron than does whole wheat, and 78% of the niacin content of whole wheat.

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Parke, Davis & Company believes that people need to be constantly reminded of the value of prompt and proper medical care. Educational advertisements—like the latest one, reproduced below—appear regularly, in color, in LIFE and other national magazines. Audience: more than 22 million people!

Some things you should know about "stomach ulcers"

No. 204 in a series of messages from Parke, Davis & Co. on the importance of prompt and proper medical care.



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DURING recent years there has been a sharp increase in the incidence of ulcer of the stomach. Some doctors report that within eight years ulcer cases have increased by as much as 100%.

Though the exact cause of stomach ulcer is still unknown, it has been observed most frequently among people subject to nervous tension and anxiety—about four times as frequently among men as among women.

Fortunately, doctors today have a number of effective methods of treatment at their command.

Improved drugs have been developed to relieve pain and hasten healing. With modern methods of treatment, fewer restrictions are placed on the ulcer patient. Under proper medical supervision, the ulcer patient today can generally lead a nearly normal life. Seldom nowadays do doctors find it necessary to prescribe as rigid a regimen as was formerly indicated.

Your doctor keeps in constant touch with the new developments in ulcer therapy. His own experience and his understanding of the individual patient enable him to choose the treatment best suited to each case.

Stomach ulcers seldom develop without warning. A common symptom is stomach pain several hours after meals, or during the night. But any regularly recurring abdominal pain should be considered a signal that something may be wrong. And your best chance to escape serious trouble and lengthy illness lies in getting medical attention immediately.

SEE YOUR DOCTOR! If you have frequent stomach pains or "indigestion," don't dose yourself. You may get temporary relief from your symptoms, but the medication you use may actually make your ailment worse. See your doctor and let him decide the cause of your trouble. He alone is qualified to diagnose your case and recommend treatment. Ask his help at the first sign of something wrong.

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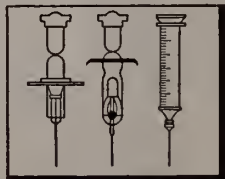


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PHYSICAL MEDICINE (Continued)

isectomy and in unstable knees. In these two conditions, particularly when there is quadriceps atrophy, weight-bearing exercises (such as bicycling, stair climbing and similar ones), frequently cause swelling and fluid.

Weakened, atrophied muscles should not be subjected to endurance-building exercises until the power muscle has been restored to normal by power-building exercises.

Restoration of muscle power with return of motion in a limb has been neglected in the past. It is in most instances preferable to have a limited range of motion with good power than to have normal range of motion with inadequate power.

Games and group exercises, as practiced in reconditioning programs, are unsatisfactory for producing focal muscle development.

Extreme atrophy and fibrosis appearing in muscles following prolonged immobilization are not contraindications for strenuous resistive exercises.

Knees unstable either from loss of ligamentous support or muscle atrophy should refrain

from full weight bearing activities until the quadriceps power has been restored by non-weight-bearing exercises.

DISAPPEARANCE OF PAINFUL PHANTOM LIMBS AFTER ELECTRIC SHOCK TREATMENT

J. E. Pisetsky

In AMERICAN JOURNAL OF PSYCHIATRY
102;599

March 1946

Abstracted in

JOURNAL OF

THE AMERICAN MEDICAL ASSN., 131;11;942
July 13, 1946

A man aged 55 with involutional psychosis precipitated by traumatic loss of both legs, with painful phantom limbs, experienced improvement in psychosis after treatment with electric shock, with disappearance of the painful phantom limbs. Pisetsky noted that a patient with a painful phantom limb experienced a remission in his symptoms after a convulsive seizure. The use of electric shock therapy suggested itself as a method for the controlled administration of a convulsive seizure.

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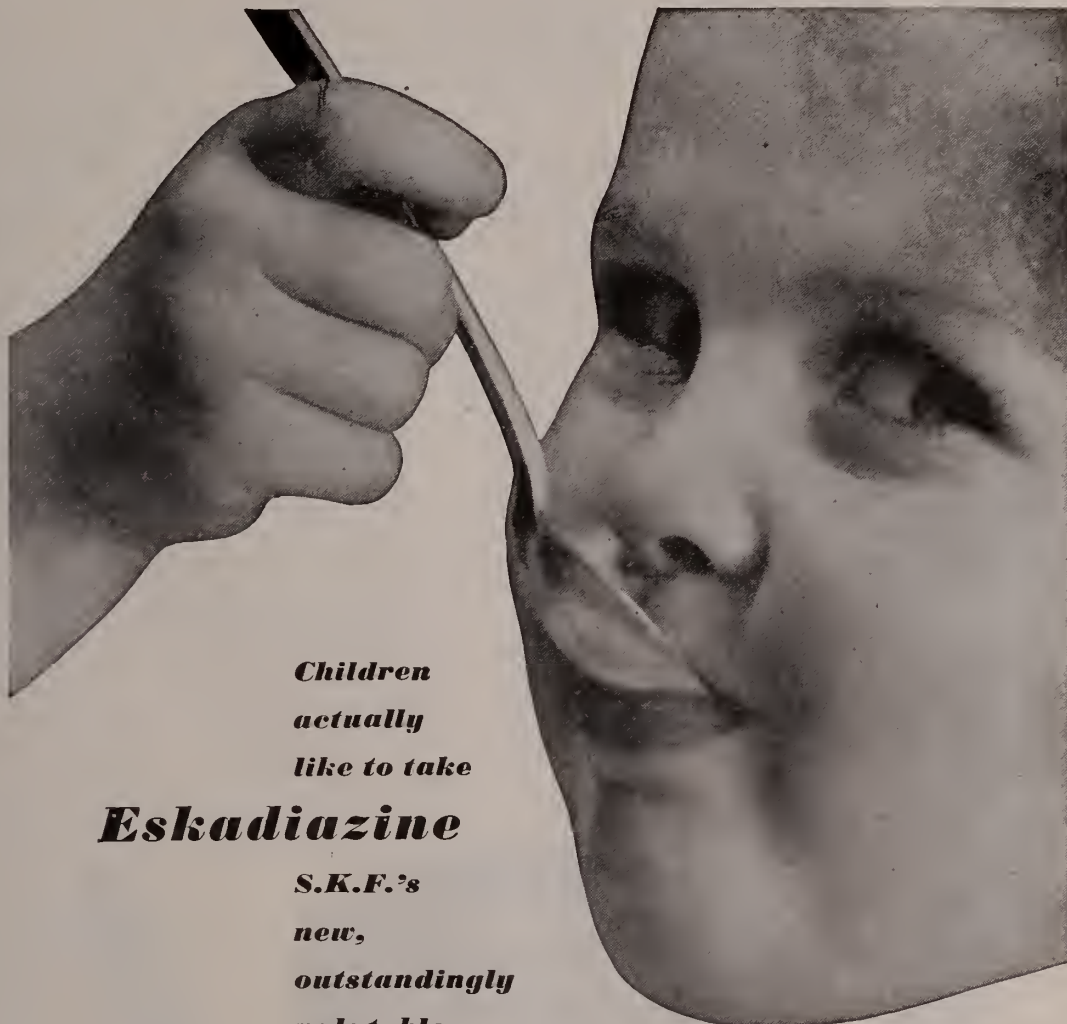
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outstandingly
palatable
fluid
sulfadiazine for oral use***

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*Flippin, H. F., et al.: Am. J. M. Sc. 210:141-147, 1945.

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So we herald your great reputation,
We acclaim your most wonderful feat,
You have reason for highest elation—
May you live long enough to repeat.

Medication

I have swallowed nauseus potions,
I've been rubbed with sticky lotions,
I've been given pills and tablets large and small;
I have had things hypodermic,
I've had many treatments thermic,
Of inoculations I have had them all.

I have had manipulations
And colonic irrigations,
And I do not like lavages—not a bit.
Intramuscular injections.
With occasional infections,
Are not funny when a man desires to sit.

I have been upon a diet
If you think its pleasant, try it;
But the theraputic memory that remains,
Confidentially, between us,
Is that awful intravenous,
When they put twelve quarts of glucose in my veins.

SENILITY

I don't mind getting senile,
I don't mind growing old,
With arteries that harden
And passions that grow cold.

I do not mind amnesia,
I don't mind failing sight
Or footsteps that will falter,
A mind that's not so bright!

But in wrath I arise,
To severely chastize

(Continued on page 56)

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ACID RANGE ALKALINE RANGE
NORMAL RANGE OF VAGINAL pH

pH VALUE. The normal vaginal pH lies between 4.0 and 5.0. Both Lactikal Jelly (pH 4.15) and Lactikal Creme (pH 4.9) are within this normal range and so tend to maintain the proper pH value of the vaginal tissues.

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vides a highly lubricating medium. Lactikal Creme with a cream base, is less lubricating. The choice between these lies with the preference of the patient.

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Lactikal Creme: Lactic Acid, 0.5%; Glyceryl Monoricinoleate, 1.5%; Sodium Lauryl Sulfate, 0.6%.

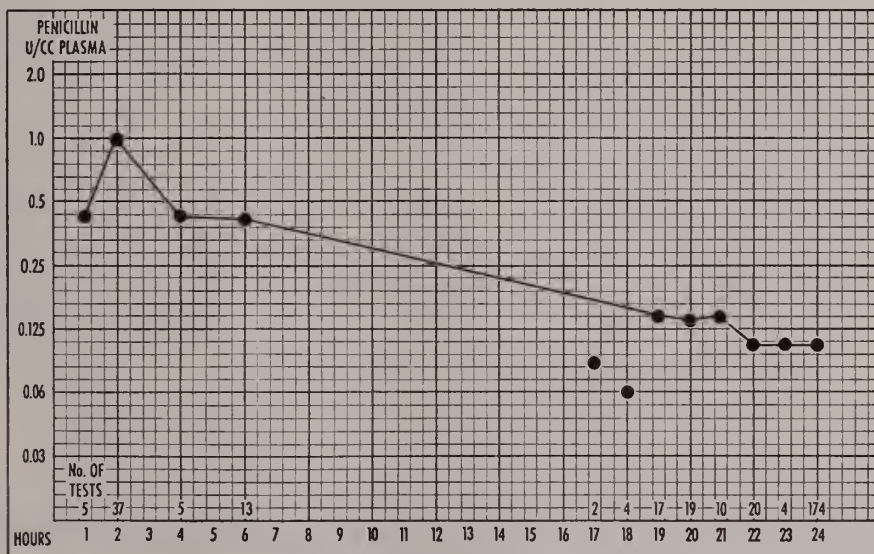
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In a Series of 174 Patients 1cc. Daily Produced These Levels



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The scientist who declares,
Deaquification
By slow aggregation
Has crept on me unawares.

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Cynical Cinquain
Unattainment

We work
Throughout the years
To reach a goal thereby,
When half complete with toil and tears
We die.

✓ ✓
The Aged One

"You are senile, old man," the young golfer said,
"And you swing like an awkward old cow,
Yet your score is consistently over my head:
Will you tell me the why and the how?"

"In the days long ago," the old man answered back,
"How I practiced through sunshine and storm;
But now I step up and just hit her a wack,
And I don't give a damn about form."

✓ ✓
QUARRELSOME QUATRAINS

A nudist camp's a most disgusting sight,
And yet, for certain folks it's quite all right,
Who, when invited any place, declare,
"I don't possess a single thing to wear."

MEMORIES OF BOSTON

I have driven and ridden through Boston,
I have walked in each old narrow street;
I've seen Harvard and Rattcliffe and Wellesley
And Mass. Tech. with much aching of feet.

I saw countless historical places,
From the Bunker Hill Monument tall,
To King's Chapel, the Commons, the Frigate,
And old churches so ancient and small.

As I drove through its beautiful environs
I was charmed at the things one can see,
And I smiled a wee smile at its English
Found it just as provincial as we.

I learned much of its primness and smugness,
In its stores found the fashions in vogue,
But my happiest memory of Boston
Is police with such rich Irish brogue.

✓ ✓
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No Soap.

We play
Our golf with care,
We struggle on and hope.
In spite of practice, pro and player —
No soap.

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SET



for Quick URINE-SUGAR TESTING

Simple—Speedy—

Clinitest is a copper reduction test with reagents compressed in a single tablet. Heat is generated by the reaction of the tablet dropped in a fixed amount of diluted specimen.

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BACTERICIDAL
HYGROSCOPIC
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NON-IRRITATING
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Bibliography:
New Eng. J. Med., 234:468, 1946.
Annals of Allergy, 4:33, 1946.
J.A.Ph.A., (Sc.Ed.), 35:304, 1946.
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Literature on request.



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Bactericidal for Gram-Positive and Gram-Negative Micro-Organisms

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Treatment with Glycerite of Hydrogen Peroxide ipc Resulted in Rapid Control of the Infection in Conditions Diagnosed Clinically as:

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Use full strength prophylactically as a post-operative application and therapeutically as a wet dressing renewed as frequently as indicated.

Use orally, diluted with water, as rinse or gargle.

Available on prescription in four-ounce bottles.

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Over 85 years

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ISSUE POSTAGE STAMP COMMEMORATING A.M.A. CENTENNIAL JUNE 9

Postmaster General Robert E. Hannegan has approved the issuance of a commemorative postage stamp honoring the doctors of America.

The special stamp of the three-cent variety was placed on sale on June 9 on the occasion of the 100th anniversary of the founding of the American Medical Association.

"In so honoring the American doctor," Mr. Hannegan said, "we are paying tribute to the men and women of medicine who devote their lives to the cause of humanity. Alleviation of pain and suffering and the betterment of mankind is their creed. The contribution which they have made to our national life is one of which all Americans can be proud and grateful."

Advances made in the treatment of tuberculosis, particularly "collapse therapy" and other surgical procedures, make it desirable for general hospitals to admit many such patients, especially in certain phases of the illness, but special institutions and tuberculosis sanatoria, no doubt, will still be needed to care for long-term convalescent patients. Hosp. Survey News Letter, Feb. 1946.

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REG. U. S. PAT. OFF.

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WAS ITS "PROVING GROUND"

Infantile eczema, as well as infantile eczema with secondary pyogenic infection, were the conditions in which the unusual therapeutic efficacy of Tarbonis and Sul-Tarbonis was proved. (Kenney, E. L.; Pembroke, R. H.; Chatard, F. E., and Ziegler, J. M., J.A.M.A. 117:1415 [Oct. 25] 1941.) Tarbonis presents a unique alcoholic extract of coal tar—rich in the substances to which the action of tar is attributed—incorporated in a vanishing cream base containing lanolin and menthol. Odorless, greaseless, and colorless, Tarbonis provides all the efficacy of tar in its most valuable form. Indicated in many types of eczema (including the infantile), seborrheic dermatitis, eczematoid dermatitis, varicose and other indolent ulcers, and whenever the action of tar is required. When secondary infection supervenes, as in infected eczema or infectious eczematoid dermatitis, Sul-Tarbonis is specifically indicated. It adds the antibacterial influence of sulfathiazole (5%) to the action of Tarbonis.

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THE NORBURY SANATORIUM, Jacksonville, Illinois

Book Reviews

FUNDAMENTAL OF CLINICAL NEUROLOGY: H. Houston, Merritt, M.D. and Fred A. Mettler, M.D., Ph.D., 1947; Price \$6.00; 289 pages; The Blakiston Company, Philadelphia and Toronto.

This book of 289 pages is a practical treatise on the essential fundamentals of neurological examination, neuro-anatomy, neurological symptoms, and some of the more common neurological diseases. Controversial material has been omitted. There are appropriate illustrations and charts. Brief therapies are suggested. The correlation between anatomy, pathology, and clinical interpretation is well written and concise.

The first part of the book covers the examination of the nervous system. A sample of a neurological history and examination sheet has been included which enables one to determine the importance of the various aspects of the neurological examination. The various simple tests and their interpretation are briefly and clearly described.

The second part of the book covers anatomical

diagnosis with clinical correlation. A chapter is devoted to brief considerations of the spinal fluid with the various diagnostic tests. There are briefly described a number of cerebrospinal syndromes and some common systemic diseases with neurological symptoms.

This book is recommended for a quick and brief reference to the essentials of neurology with which any physician should be acquainted. The book is well organized and easily read. J.W.F.

CLINICAL ELECTROCARDIOGRAPHY, by David Scherf, M.D., F.A.C.P., Associate Professor of Medicine, New York Medical College, Flower and Fifth Avenue Hospitals, and Linn J. Boyd, M.D., F.A.C.P., Professor of Medicine, New York Medical College, Flower and Fifth Avenue Hospitals. Second Edition. J. B. Lippincott Company, Philadelphia. Price \$8.00.

Those who with both pleasure, profit, and satisfaction became acquainted with the first edition appearing in English of Clinical Electrocardiography by Scherf and Boyd, and with the companion volume, Cardiovascular Diseases, will turn with pleasure to their second edition of Clinical Electrocardiography.

The strength of clinical conviction obtained at the bed side is felt in reading their Cardiovascular Diseases. One is pleased to note in the preface to the second edition of Clinical Electrocardiography that as regards disturbances of rhythm and the application of therapy a close correlation between electrocardiographic find-

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Jerome R. Head, M.D.—Chief of Staff

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ings and their evaluation, is a primary purpose of the authors in the present edition.

The exercise test in the diagnosis of coronary stenosis is described and carefully evaluated. The test carried out, permits in certain cases an objective confirmatory finding, where history alone in early cases would not indicate a definite cardiac anovemia. However, the authors warn against prognostic conclusions in a normal electrocardiogram following the test of today, for at times the patient is dead tomorrow.

In the still somewhat controversial subject in some respects, of Bundle Branch Block the authors state, "Location of the pathologic process with certainty and demonstration of whether the block exists exclusively in the right or left branch is fraught with difficulties at present, and is often impossible. This difficulty in locating the site of the disturbance has little clinical significance, however. The diagnosis that a disturbance exists in intraventricular conduction is easy and suffices."

The authors believe that in clinical cardiology the value of the chest leads is limited chiefly to the diagnosis of coronary occlusion when typical changes fail to appear in the conventional leads, and they say, "Concerning the areas from which the most informative chest leads can be obtained, the question is still open."

In discussing chest leads the authors favor the use of C R leads, emphasis placed on using no less than two, CR 2 and CR 4. The central terminal assembly

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BOOK REVIEWS (Continued)

is not mentioned or its modifications as used for making augmented extremity leads. More recently when roetgenology is offering more exact and easily available methods to estimate cardiac enlargement and other cardiovascular values, electrocardiographic values that would be correlated with this is of interest. Possible the view point presented by the authors in the section, "Alterations of the Ventricular Complex and Their Significance," would represent what the authors have to say in this volume on electrocardiographic finding and cardiac enlargement.

For those nurturing an interest in what can be hoped to be learned from an electrocardiographic examination, diligence in the study of "Clinical Electrocardiography" — this and the second edition of Cardiovascular Diseases which incorporates electrocardiographic references not included in the first edition, will quickly take one out of the *atlas cardiologist* stage, of just comparing a tracing with those in a reference book in determining a diagnosis.

Many a maternity patient has received obstetric care in its most literal sense — that is, care which is focused only on her reproductive organs — and died from tuberculosis or diabetes or cancer soon after delivery. Hazel Corbin, R.N., *Jour. of Nursing*, Aug., 1946.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

BONE AND BONES; Fundamentals of Bone Biology by Joseph P. Weinmann, M.D., College of Dentistry, University of Illinois, Formerly at School of Dentistry, Loyola University, Chicago, and Harry Sicher, M.D., School of Dentistry, Loyola University, Chicago; with 289 illustrations; The C. V. Mosby Company, St. Louis, 1947, 464 pages. \$10.00.

THE PHARMACOPAEA OF THE UNITED STATES OF AMERICA; thirteenth revision; (U. S. P. XIII) By authority of the United States Pharmacopaeial Convention, Meeting at Washington, D. C., May 14 and 15, 1940; Prepared by the Committee of Revision and Published by the Board of Trustees; Official from April 1, 1947; Electrotyped and printed by Mack Printing Company, Easton, Pa.; Distributed by Mack Publishing Company, Easton, Pa. 957 pages.

REHABILITATION THROUGH BETTER NUTRITION; University of Cincinnati Studies in Nutrition at the Hillman Hospital, Birmingham, Alabama, by Tom

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D. Spies, M.D.; From the Department of Internal Medicine, University of Cincinnati College of Medicine; W. B. Saunders Company, Philadelphia and London, 1947, 94 pages. \$4.00.

THE RH FACTOR; its relation to congenital hemolytic disease and to intragroup transfusion reactions; Edith L. Potter, M.D., Ph.D., Assistant Professor of Pathology, Department of Obstetrics and Gynecology, the University of Chicago and the Chicago Lying-in Hospital; The Year Book Publishers, Inc., 344 pages. \$5.50.

RECENT ADVANCES IN CLINICAL PATHOLOGY; Dyke (Editor) and Various Authors. Produced under the auspices of The European Association of Clinical Pathologists. General Editor, S. C. Dyke, D.M., F.R.C.P.; Section Editors: R. Cruickshank, M.D., F.R.C.P., Bacteriology; E. N. Allott, B. Ch., F.R.C.P., Biochemistry; B. L. Della Vida, M.D. Rome, Hematology and Cytology; A. H. T. Robb-Smith, M.D., Histology. 34 plates, 19 text figures. 468 pages. \$5.50. Published April 11, 1947. The Blakiston Company, 1012 Walnut Street, Philadelphia 5, Pa.

EXPERIENCES WITH FOLIC ACID by Tom D. Spies, M. D., Associate Professor of Medicine, University of Cincinnati School of Medicine, Director of the Nutrition Clinic, Hillman Hospital, Birmingham, Alabama. The Year Book Publishers Inc., 304 South Dearborn Street, Chicago; 110 pages. \$3.75.

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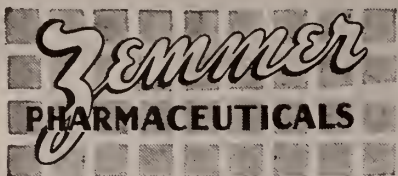
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Another step toward the \$100,000,000 medical center now being established on the Chicago campus of Northwestern University was realized recently. Dr. J. Roscoe Miller, dean of the medical school, announced receipt of the first of several gifts, expected to total more than \$500,000, for the creation of a fund to facilitate expanded research in the field of venereal diseases, other public health problems, and medical education.

The initial gift of \$190,172, with others to follow in succeeding months, has been made to the University from assets of the Public Health Institute of Chicago, which ceased operation early this year after 26 years of service.

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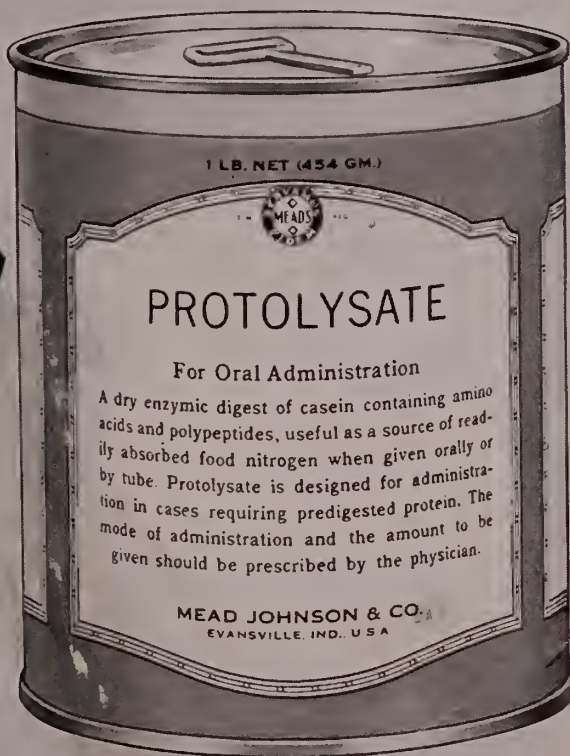
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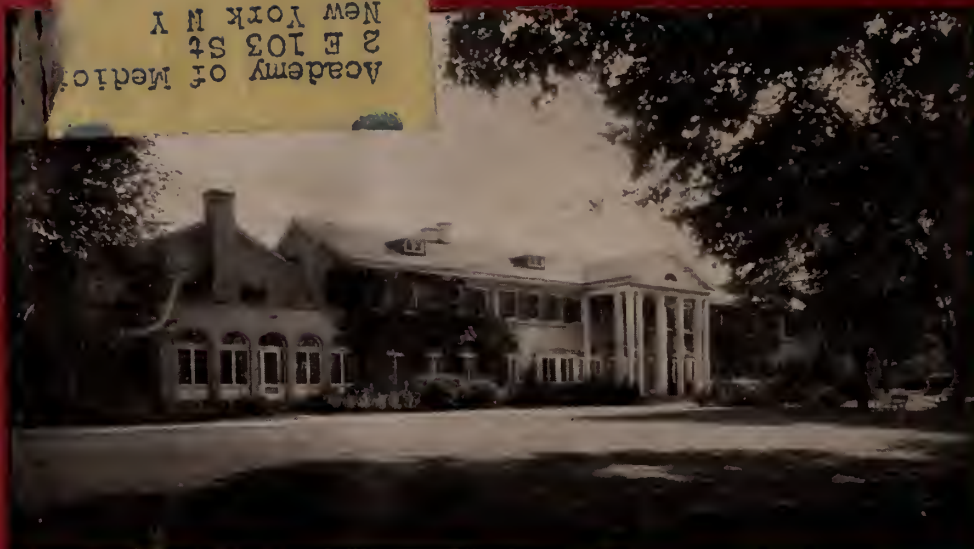
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